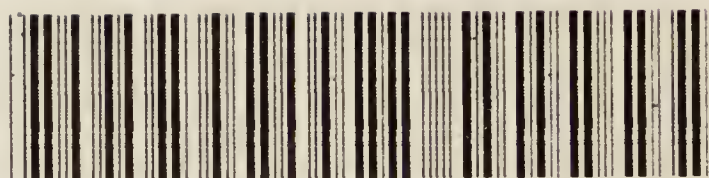


FAMILIAR  
GARDEN  
FLOWERS



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To Nelly  
from Father & Mother

Christmas Eve

1898









WALL FLOWER.

# FAMILIAR GARDEN FLOWERS

FIGURED BY

F. EDWARD HULME, F.L.S., F.S.A.

AND DESCRIBED BY

SHIRLEY HIBBERD

“Where does the wisdom and the power divine  
In a more bright and sweet reflection shine?  
Where do we finer strokes and colours see  
Of the Creator's real poetry,  
Than when we with attention look  
Upon the third day's volume of the Book?  
If we could open and intend our eye,  
We all like Moses should espy,  
Even in a bush, the radiant Deity.”

COWLEY, *The Garden*, Essay V.

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## PREFACE.

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LIGHT words are at times more serviceable than learned lines, and persuasions are often more effective than arguments. This is especially the case in respect of subjects that are adapted for universal enjoyment, and that appeal to feeling first and afterwards arouse curiosity and set the mind to work. Garden flowers give more delight, perhaps, to those who study their history and cultivation and uses, than to such as admire them but in a casual way, and who may be said to smile and pass on. But in either case the gratification, which is one of sentiment in the first instance, becomes an intellectual exercise, and may be aided by one given to gossiping, and with a little knowledge to flavour his words. It is with some such purpose the following papers have been penned to accompany a series of pictures adapted to awaken and sustain an interest in "familiar garden flowers."

S. H.





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## SYNOPSIS.

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THE subjoined notes will be useful to readers who desire more information of a scientific and technical nature than is embodied in the sketches that accompany the plates. To arrange them otherwise than in accordance with the arrangement of subjects in the body of the work would appear an incongruity; and as each note is complete in itself, the lack of scientific sequence is probably of no consequence. It is impossible, indeed, in such a work as the present, to follow any system, unless it be that of the butterfly, which probably knows but little of botany, but appears to be perfectly happy in going from flower to flower.

**WALLFLOWER, or CHEIRANTHUS.** The English name refers to the habit of the plant as an inhabitant of walls and rocks; the Latin name implies that it is in an especial manner a nosegay or "hand" flower. N.O., *Cruciferae*. LINNÆAN: 15, *Tetradynamia*.—The cruciferous order is one of the most natural as well as most important of the great families of the vegetable kingdom, as it includes the cabbages, cauliflowers, cresses, mustards, turnips, colzas, horse-radish, sea-kale, and an immense number of ornamental plants, of which the candytuft, stock, wallflower, and arabis are familiar examples. Many of the plants of this order are characterised by a volatile acidity and a pungent flavour; they are stimulant and antiscorbutic; none of them are poisonous. Most of them are annual or biennial herbs; some are perennial and sub-shrubby; all have alternate leaves without stipules; the flowers are hermaphrodite, regular, and consist of a calyx of four pieces and a corolla of four petals clawed at the base and arranged opposite each other in the form of a cross; hence the term "cruciferous." The stamens are six in number, four of which are longer than the other two. The stigma is two-lobed. The ovary is superior, with two cells separated by a partition to which the ovules are attached. The fruit is a silique, or a silicle, dry, one or many seeded, and usually opening in two valves. The seeds are without albumen, but in many instances contain oil, which is removed by expression for commercial purposes. p. 1.

**ACONITUM**, most probably from *Aconæ*, the place where it was first found. N.O., *Ranunculaceæ*. LINNÆAN: 13, *Polyandria*; 2, *Trigynia*.—The ranunculus or crowfoot family consists of herbaceous and half-shrubby plants, with leaves alternate, divided, and widened at the base, where they

form a sheath round the stem. The flowers vary much in their disposition, having sometimes a whorl of three leaves close to them or at some distance below. The calyx consists of three to six pieces; the corolla contains petals that have a distinct numerical relation to the leaves of the calyx, being equal, double or triple. Thus the buttercups have usually a calyx of five leaves and a corolla of five petals; but the pilewort, or lesser celandine, has usually three sepals and nine petals; while the peony has five sepals and five to ten petals. The stamens are generally numerous, distinct, and situated under the ovary. The carpels, or seed-vessels, are sometimes one-seeded and collected in a head or capitule; or many-seeded and combined in a whorl; or are compressed so as to form a many-celled pistil. All the ranunculaceous plants have watery juices, and are more or less acrid and poisonous, and the roots are often more decidedly poisonous than the stems and leaves. But the poisonous principle is destroyed by boiling or drying; hence some of these plants are used for food when cooked, and the poisonous crowfoots of our meadows, which are never touched by cattle, become wholesome fodder when dried in the form of hay. The aconite may be distinguished from all other members of the ranunculus family by the fact that the large uppermost segment of its calyx overhangs the petals and other parts in the form of a helmet.

p. 5.

**PETUNIA**, from *petun*, the Brazilian name for tobacco. N.O., *Solanaceæ*. LINNÆAN: 5, *Pentandria*; 1, *Monogynia*.—This order is composed of herbs or shrubs, rarely of arborescent plants, with colourless juices, round or irregularly angled stems or branches, sometimes armed with thorns or prickles; their leaves alternate, simple, entire, or lobed; the inflorescence is variable, mostly axillary, sometimes terminal; the flowers regular and united; the calyx is five-parted, persistent; corolla monopetalous, five-cleft or four-cleft, regular, deciduous; stamens inserted upon the corolla, as many as the segments of the limb, and alternate with them; ovary two or four-celled, stigma simple; fruit either a capsule or a berry; seeds numerous. A large and somewhat anomalous order, comprehending many useful and many noxious plants, as, for example, the potato, tomato, nightshade, egg-plant, capsicum, henbane, and tobacco. Between the flower of the potato and that of the petunia what a difference, and yet we are to regard them as somewhat nearly related!

p. 9.

**LILIUM**, from *leirion*, or from the Celtic *li*, white. N.O., *Liliaceæ*. LINNÆAN: 6, *Hexandria*; 1, *Monogynia*.—The lilyworts are endogenous plants widely scattered over the globe, and comprehending the dracænas, yuccas, aloes, and asparagus, as well as the true lilies, which for the most part produce fleshy bulbs of annual duration. The leaves are always simple and undivided, and usually have the veins running straight from the base to the apex, but in some dracænas they diverge from the midrib to the margin. The flower consists of six perianth pieces, six stamens with anthers opening inwards, and a superior three-celled ovary changing to a three-celled fruit.



The true lilies have a longitudinal nectariferous furrow at the base of each petal or perianth piece, an undivided style, a capitate stigma, and flat seeds. The colour of the flowers is white, yellow, or red. p. 13.

**TROPÆOLUM**, from *tropaion*, a trophy. N.O., *Tropæolaceæ*. LINNÆAN: 8, *Octandria*; 1, *Monogynia*. p. 17.

**PHLOX**, from *phlox*, a flame, in allusion to the splendour of the flowers. N.O., *Polemoniaceæ*. LINNÆAN: 5, *Pentandria*; 1, *Monogynia*.—The order represented by *Polemonium* consists, for the most part, of herbaceous plants with alternate leaves, regular flowers which have a five-cleft calyx, and a five-lobed corolla consisting of one piece as in the primulas. The stamens are five in number, inserted alternately with the lobes of the corolla; ovary three-celled, fruit a capsule. There is not much to be said of this order, as it has no important place in the arts, and it is restricted in its forms and geographical distribution. It is more largely represented in the new than in the old world, and the majority of its members are found in temperate climates, a few of the smaller kinds giving a glow of colour to alpine and sub-arctic scenery. As garden plants, many of them are of great importance, as not only the phlox, but the gilia, ipomopsis, cobæa, leptosiphon, and the lovely cantua are members of the order. p. 21.

**MICHAELMAS DAISY**.—See under “Aster.” p. 25.

**SINGLE FUCHSIA**.—See under “Fuchsia.” p. 29.

**CHRISTMAS ROSE, or HELLEBORUS**. The familiar name needs no explanation. *Helleborus* is from the Greek *helein*, to kill, and *bora*, food, implying a poisonous plant, which this certainly is. N.O., *Ranunculaceæ*. LINNÆAN: 13, *Polyandria*; 6, *Polygynia*.—See under “*Aconitum*.” p. 33.

**LAVENDER**, from Latin *lavo*, to wash. N.O. *Lamiaceæ*, or *Labiatae*. LINNÆAN: 14, *Didynamia*; 1, *Gymnospermia*.—The labiate order is marked with strong characters, and constitutes a distinct though extremely large group. The members of it are mostly herbs and low shrubs with square stems, opposite leaves, and aromatic juices; the flowers are singularly formed; the calyx is bell-shaped with five teeth; the corolla tubular, irregular, two-lipped, the upper one very short and sometimes wanting; stamens four; ovary four-lobed; stigma two-cleft; fruit composed of four one-seeded nuts enclosed in the interior of the permanent calyx. A large proportion of the most useful aromatic herbs belong to this order, such as sage, thyme, marjoram, mint, betony, ground ivy, &c. About 1,714 species are known, of which over 1,000 belong to the eastern hemisphere. The temperate and warm temperate parts of the earth are largely occupied with labiates; there are but few in the Equinoctial regions, and still fewer are Arctic. p. 37.

**CAMPANULA**, from Lat. *campana*, a little bell. N.O., *Campanulaceæ*. LINNÆAN: 5, *Pentandria*; 1, *Monogynia*.—This order consists for the most part of leafy herbs with alternate leaves, which sometimes contain a milky juice. The flowers are hermaphrodite and regular, consisting of a persistent calyx, usually of five divisions, but sometimes of three or eight. Corolla inserted in the summit of the tube of the calyx, usually five-lobed, and bell or saucer-shaped; stamens five, inserted in the summit of the tube of the calyx; ovary inferior, with two, three, or five many-ovuled seeds; fruit a capsule containing many seeds attached to a central placenta. A comparatively unimportant order, the members of which are esteemed for their beauty.

p. 41.

**RUDBECKIA**, named after O. Rudbeck, a Swedish botanist. N.O., *Asteraceæ*. LINNÆAN: 19, *Syngenesia*; 3, *Frustranea*.—See under “Aster.”

p. 45.

**MARIGOLD**.—See under “Aster.”

p. 49.

**BALSAM**, or **IMPATIENS**. The word balsam explains itself, although the plant does not furnish any oil or balm or resin that might be so called. The term *impatiens* refers to the hasty escape of the seeds when the pod is touched. N.O., *Balsaminaceæ*. LINNÆAN: 5, *Pentandria*; 1, *Monogynia*.—The order consists chiefly of succulent herbs, with sometimes radical leaves, but more frequently caulescent leaves which are alternate or opposite: flowers irregular, issuing from the axils of the leaves; calyx with five segments, which are petal-like and unequal; corolla with five petals alternate with the segments of the calyx, the anterior petal large and concave, the two posterior united with the two small lateral ones; stamens five; fruit a capsule with five many-seeded cells beneath, but one-celled above and opening in five elastic valves. A small order containing no plants of special interest or importance.

p. 53.

**YORK AND LANCASTER ROSE**.—See under “Rosa.”

p. 57.

**MARIGOLD**, or **CALENDULA**. N.O., *Asteraceæ*. LINNÆAN: 12, *Syngenesia*; 4, *Necessaria*.

p. 61.

**JESSAMINE**, or **JASMINE**. N.O., *Jasminaceæ*. LINNÆAN: 2, *Diandria*; 1, *Monogynia*.—Climbing shrubs or miniature trees, with leaves opposite or alternate; trifoliate or unequally pinnate, without stipules; flowers hermaphrodite, regular; calyx of five to eight lobes; corolla with five to eight lobes; stamens two; ovary two-celled; fruit a double berry or duplex capsule. A small order, the members of which are met with in tropical and warm temperate climates. In many instances the flowers abound in a fragrant essential oil.

p. 65.



**SALVIA**, from *salvo*, to save, in allusion to the medicinal properties of the sage and other aromatic plants of the same genus. N.O., *Lamiaceæ*, or Lipworts. LINNÆAN: 2, *Diandria*; 1, *Monogynia*.—This order has several distinctive characters. The stems are four-cornered, the leaves are opposite, replete with receptacles of aromatic oil; the flowers in whorls or opposite cymes, the corolla bilabiate, the upper lip overlapping the lower, which is larger and three-lobed; the fruits are small nuts enclosed within the persistent calyx. As they come near to borageworts, note should be taken of their square stems and irregular flowers, for borageworts have round stems and regular flowers. The labiates are natives of temperate regions chiefly, and are very abundant. In the cooler parts of India there are over two hundred species; they love dry sunny places, as is the case generally with aromatic plants. In the arts they are much used, as in the preparation of perfumes and sauces; a few are eatable, and many have valuable medicinal properties. The famous patchouli is a labiate; lavender, mint, horehound, and rosemary are familiar labiates renowned for their several uses. As regards the rosemary there can be no question of its power of encouraging the growth of hair, and thereby curing baldness; it is used also in the manufacture of Hungary water, and contributes in an especial degree to the pungent aroma of eau de Cologne. The famous Narbonne honey is derived from the flowers of rosemary, which abounds in that district of France.

p. 69.

**INDIAN PINK**, or **DIANTHUS**, from *dios*, divine, and *anthos*, flower, the divine flower. N.O., *Caryophyllaceæ*. LINNÆAN: 10, *Decandria*; 2, *Digynia*.—See under “*Lychnis*.”

p. 73.

**GLADIOLUS**, from *gladius*, a sword, in allusion to the form of the leaves. N.O., *Iridaceæ*. LINNÆAN: 3, *Triandria*; 1, *Monogynia*.—Although the Cape species of gladiolus are best known in gardens, there are a few European species, and two of them are found wild in Britain. *Gladiolus segetum*, the cornflag, and *G. communis*, which may be called English if not British, very fairly represent the family, and are worthy of the special attention of the rambling botanist. Hitherto, however, *G. communis* has only been found amongst the bracken near Lyndhurst, in the New Forest.—See under “*Iris*.”

p. 77.

**MALCOMIA**. Named after W. Malcom, mentioned by Ray. N.O., *Cruciferae*. LINNÆAN: 15, *Tetradynamia*.—See under “*Wallflower*.”

p. 81.

**LOBELIA**, named after M. Lobel, botanist. N.O., *Lobeliaceæ*. LINNÆAN: 5, *Pentandria*; 1, *Monogynia*.—This order consists almost exclusively of herbs and under-shrubs of suspicious qualities. The leaves are alternate and simple; the flowers irregular; the corolla five-lobed; the fruit a capsule opening at the top. The species are, for the most part, moisture-loving plants, possessing acrid juices of the most poisonous nature.

p. 85.

**COMMELINA.** Named after J. and G. Commelin, Dutch botanists. N.O., *Commelinaceæ*. LINNÆAN: 3, *Triandria*; 1, *Monogynia*.—The Commelinas, or spiderworts, are of comparatively small consequence, so far as we know, in the vegetable world. They are herbs with hermaphrodite flowers, which are arranged in two sets of three pieces; the fruit is a capsule. Some of the plants of this order are edible, and those known in gardens which produce tuberous roots are sweet and agreeable. From the flowers of *Commelina communis* ultramarine is prepared. p. 89.

**COLUMBINE, or AQUILEGIA.** The familiar name is from *columba*, a dove, the botanical name from *aquila*, an eagle; in both cases a fancied resemblance to a bird supplies the name, and it cannot be called far-fetched. N.O., *Ranunculaceæ*. LINNÆAN: 13, *Polyandria*; 5, *Pentagynia*.—See under “Aconitum.” p. 93.

**JASMINUM**, a Latin form of the Eastern name of the plant.—See under “Jessamine.” p. 97.

**BROWALLIA.** Named after Bishop Browallius. N.O., *Scrophulariaceæ*. LINNÆAN: 14, *Didynamia*; 2, *Angiospermia*.—See under “Mimulus.” p. 101.

**EVERLASTING PEA, or LATHYRUS.** N.O., *Leguminosæ*, or *Fabaceæ*. LINNÆAN: 17, *Diadelphia*; 4, *Decandria*.—See under “Sweet Pea.” p. 105.

**BEGONIA.** Named in honour of M. Begon, a French patron of botany. N.O., *Begoniaceæ*. LINNÆAN: 21, *Monœcia*; 9, *Polyandria*.—These are interesting plants to the botanist no less than to the horticulturist. To discover their alliances has greatly perplexed the masters of classification, but Lindley made the best guess in associating them with the cucurbits, as the observant eye will soon discover after having had the clue revealed. The manner in which the male and female flowers appear side by side, and the disposition of stamens and stigmas, as well as the whole process of reproduction, the winged ovary being a very fair though very distant representative of a gourd, afford ready aid to the student in the determination of relationships. Lindley remarks (“Vegetable Kingdom,” 318):—“The discovery of Mr. Hartweg of begonias scrambling up trees and shrubs to the height of twenty-five feet, renders the resemblance almost complete.” The begonias are herbaceous plants for the most part, but the order comprises plants of a more robust growth than the begonias of the gardens, but of trees and shrubs in any proper sense of those terms there are none. The order belongs wholly to the new world, being unknown (except as exotic) in the old, although the conditions requisite to the growth of begonias appear to be complete in many parts of Africa and Asia. All the plants of this order have an acid juice, and the roots are astringent and bitter. The leaves are alternate, and unequal at the base, often very richly and variously coloured; the flowers are white or pink, the female flowers being distinguished by the lobed spiral stigmas and the winged fruit. p. 109.



**SWEET PEA, or LATHYRUS,** from Greek intensive prefix *la*, and *thouros*, raging, the seeds being supposed to promote excitement if eaten. N.O., *Fabaceæ*, or *Leguminifereæ*. LINNÆAN: 17, *Diadelphia*; 4, *Decandria*.—The “papilionaceous” or butterfly flowers represent an enormous natural order, comprising herbs, shrubs, and trees, from the wayside trefoil to the climbing wisteria and the stately acacia, and the useful peas and beans of the garden. The leaves are alternate, usually compound, but sometimes simple. The flowers are irregular, with calyx of five unequal teeth; the corolla is composed of five unequal petals, of which one is larger than the rest and envelops them. This is called the *standard*; the two lateral petals are the *wings*; the two under petals, which are equally united, form what is called the *keel*. There are many deviations from this typical structure, and in some few instances the corolla consists of five equal petals, stamens generally ten. The fruit is always a pod, generally dry, many-seeded, opening in two valves, or unopening, as in *sophora*. The seeds of many plants of this order are well known for their uses as food, but some of them are poisonous, and the order includes plants that produce powerful drugs. p. 113.

**HONEYSUCKLE, or CAPRIFOLIUM.** The generic name means *goat-leaf*, because, we suppose, of the tendency of the plant to climb; but such etymologies are unsatisfactory. N.O., *Caprifoliaceæ*. LINNÆAN: 5, *Pentandria*; 1, *Monogynia*.—An interesting order, comprising, for the most part, deciduous twining shrubs. An important section is the genus *Lonicera*, named after Adam Lonicer, which is closely related to the genus *Caprifolium*. The flowers in this order are usually formed of a five-lobed calyx and a five-lobed corolla, each consisting of only one piece; the fruit is a berry. The associates of the honeysuckles are the elders, viburnums, snowberries, weigelas, cobæas, and lycesterias, all of which are of free growth, and tree-like or sub-shrubby. They are all temperate or sub-arctic plants, and belong exclusively to the northern hemisphere. In their properties they are scarcely attractive, although the elder has some claims to a leading place in the economic garden because of its styptic juice, which may be taken as elder wine or indirectly as port wine, the berries being used both to colour and flavour the more expensive liquor. p. 117.

**CRIMSON FLAX, or LINUM.** The generic name is from *linon*, flax, from which we have linen, line, lint, linseed, etc. N.O., *Linaceæ*. LINNÆAN: 5, *Pentandria*; 5, *Pentagynia*.—The order comprises herbs and woody plants, with entire leaves and hermaphrodite flowers. The calyx and corolla are each of five pieces, and the stamens agree in number and are alternate with the petals. The fruit is a capsule containing many compressed ovate seeds which are without albumen, and have a mucilaginous integument. The common flax is *Linum usatissimum*, one of the most useful of plants, the history of which carries us back to the earliest days of civilisation. It is believed to be a native of Egypt; but that belief may rest upon



**YELLOW MARTAGON LILY.**—See under “*Lilium*.”

p. 145.

**CROCUS**, from Greek *crocus*, saffron. Holinshed (“*England*,” c. 8), says that “a certain young gentleman named *Crocus* went to plaie at coits in the field with Mercurie, and being heedlesse of himselfe, Mercurie’s coit happened by mishap to hit him on the head,” &c. &c. The coit killed him. and saffron sprung from the ground whereon he had bled, and was called *crocus* in commemoration of the event. N.O., *Iridaceæ*. LINNÆAN: 3, *Triandria*; 1, *Monogynia*.

p. 149.

**POPPY, or PAPAVER.** N.O., *Papaveraceæ*. LINNÆAN: 13, *Polyandria*; 1, *Monogynia*.—See under “*Eschscholtzia*.”

p. 153.

**WINTER ACONITE.**—See under “*Aconitum*.”

p. 157.

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I will not praise the often-flattered rose,  
 Or, virgin-like, with blushing charms half seen,  
 Or when, in dazzling splendour, like a queen,  
 All her magnificence of state she shows;  
 No, nor like that nun-like lily which but blows  
 Beneath the valley’s cool and shady screen,  
 Nor yet the sunflower, that, with warrior mien,  
 Still eyes the orb of glory where it glows;  
 But thou, neglected wallflower! to my breast  
 And muse art dearest, wildest, sweetest flower!  
 To whom alone the privilege is given  
 Proudly to root thyself above the rest,  
 As Genius does, and, from thy rocky tower,  
 Lend fragrance to the purest breath of heaven.

# FAMILIAR GARDEN FLOWERS.



## THE WALLFLOWER.

*Cheiranthus Cheiri.*

THE wallflower is a prominent member of the cheerful family of “old-fashioned” flowers, and obviously takes its name from the circumstance that it thrives on walls, which, indeed, it often adorns in a most extravagant and delightful manner, making them mountains of perfume and beacons of fire. I was much struck with the glow of an old bastion at Amiens in April last, as the sunshine streamed through its ruddy bloom of wallflowers, and I very gladly remembered, in connection with the charming spectacle, the lines of Bernard Barton, in reference to the wallflowers of Leiston Abbey—

“ And where my favourite abbey rears on high  
Its crumbling ruins, on their loftiest crest,  
Ye wallflowers, shed your tints of golden dye,  
On which the morning sunbeams love to rest,—  
On which, when glory fills the glowing west,

The parting splendours of the day's decline,  
With fascination to the heart address'd,  
So tenderly and beautifully shine,  
As if reluctant still to leave that hoary shrine."

A snapdragon might, with perfect propriety, be called a "wall" flower, and a full list of plants that commonly grow on walls would include a considerable number of dear old garden friends. The finest wallflower I have seen was a great tuft of wheat that kept company with snapdragons and stone-crops and pellitories on one of the old fruit walls within view of my bedroom windows. I watched it through the summer with ever-increasing joy, anticipating the harvesting of the crop, and the feeding of my parrots with the "golden" grains. But when they were about half-ripe I saw, as I gazed from my window, a great hand rise above the wall and grasp them, and they disappeared as in the twinkling of an eye, while a thrill of horror went through me from head to foot. It was the gardener, who had suddenly resolved to make the wall tidy.

The wallflower has no special renown in literature, and is but rarely mentioned by the poets. It is not a native of this country, and although so thoroughly at home as a wilding on ruins, it is not known as a plant of the rocks, and is not often met with remote from places that have been modified by the hand of man. Its old name was "stock-gillofer" and "wall-gilloflower." Under the last name Parkinson, in the "*Paradisus*," describes seven sorts: the Common Single, the Great Single, the White, the Common Double, the Pale Double, the Double Red, and the Double Yellow. The "streaked gillivors" that Perdita speaks of as "nature's bastards" were, in all probability, pinks or cloves, but the wallflower and the stock were



known by the same name, and therefore we cannot always determine with precision the flowers referred to when gillivor or gilloflower occurs in our older literature. The Latin name, *Cheiranthus*, means "hand-flower," and it is most appropriate.

The cultivation of this flower is an extremely simple affair. The seeds should be sown on a plot of newly-dug ground in the month of May; and during rainy weather in July, the plants should be transplanted into rows a foot apart, and the plants six inches apart in the rows. In September or October they should be lifted with care and be at once planted where they are to flower, and in the months of April and May following they will be gay enough. The best of the double kinds is the sulphur yellow, which may be grown into a tree of considerable size, and if planted in a dry sunny situation will last any number of years, and may, indeed, become the pride of the garden. To multiply this variety, cuttings are taken, when they are full-grown but have not become woody, and being planted firmly in sandy soil and kept shaded or covered with a hand-glass, soon make roots, and in the following spring they may be planted out. Well-grown double walls make fine pot plants for the conservatory, and with a little careful forcing may be had in bloom at the turn of the year, and will continue flowering until mid-summer. The conditions of success are to be found in the employment of a gritty and somewhat calcareous soil, and affording the plants at all times plenty of light and air. Darkness and damp are death to wallflowers.

"Flower in the crannied wall,  
I pluck you out of the crannies ;—  
Hold you here, root and all, in my hand.

Little flower—but if I could understand  
What you are, root and all, and all in all  
I should know what God and man is.”—TENNYSON.

The Parisian gardeners delight the public by adorning the borders of the parks and promenades with beds of wallflowers of the most lovely description. They are grown as recommended above, and are planted so as to form dense convex masses, which, during April and May, are literally solid with fiery flowers. They mix the blood-red and purple variety, and employ the yellow very sparingly. In this country the yellow kinds are the most esteemed for bedding purposes, and the favourite sorts are the Belvoir Castle Yellow and the orange-coloured Tom Thumb.

If it is desired to establish wallflowers on ruins, rocks, and walls, the seed should be sown in April or May in suitable chinks, and be covered with a little fine soil, and it may be well, if there is danger of the seeds being blown or washed away, to cover them with a brick or tile until they germinate. The single blood-red and single yellow are the best for the purpose.









MONKSHOOD.





## MONKSHOOD.

*Aconitum napellus.*

It may be well at times to figure and describe familiar flowers that should be rendered unfamiliar. The truly handsome and very individual monkshood of the cottage garden is of so poisonous a nature, and has actually killed so many good people, that we should be wanting in duty to our readers did we not advise the rooting out of this grand herbaceous plant, and its consignment to the rubbish-heap as a plant that will surely offend if it obtains the opportunity. We distinctly remember several instances of poisoning by the substitution of its fleshy roots

for horse-radish. We confess we “don’t know how” any one who has ever tasted horse-radish could eat the root of this dangerous plant in place of it, however nicely it might be scraped and dished ; but the fact remains and the warning

follows. As the most excellent apricot jam may be made from carrots, and the Jerusalem artichoke, which is like a potato, is by many regarded as in no way differing from the globe artichoke, which is a fleshy flower of a kind of thistle, we must not be in haste to blame people who scrape the roots of monkshood and supply the scrapings to be eaten with beef as horse-radish ; but we must indulge the hope that knowledge will prevail, and speedily render such a dangerous substitution impossible.

It is somewhat singular that the older botanists are apparently in a fog with this common and characteristic plant. Mr. John Gerarde lumps it in with a lot of larkspurs, that are certainly related, but more or less far removed. His "munkeshood" is a delphinium possessed of several virtues, such as being good against the stings of scorpions, and "so forcible that the herb only thrown before the scorpion, or any other venomous beast, causeth them to be without force or strength to hurt, insomuch that they cannot mooue or stirre vntill the herbe be taken away." (Edition 1597, page 924.) To Master Gerarde's honour we are bound to quote further that in his opinion we should hold in contempt this "with many other such trifling toies not woorth the reading."

John Parkinson figures this plant fairly well, and describes it with the most delightful minuteness at page 215 of his "Paradisus." He adds that the "fair blew colour" of the flowers "causeth it to be nourished upon gardens, that their flowers, as was usual in former times, may be laid up among green herbes in windowes and roomes for the summer time ; but although their beauty may be entertained for the uses aforesaid, yet beware they come not near your tongue or lips, lest they tell



you to your cost, they are not so good as they seem to be."

It is amusing to note how these grand old masters, who produced such books as we, degenerate triflers, dare not even think of because of the years of work and the thousands of pounds we should have to expend upon them—it is amusing to note how they struggled against superstition with the right hand, and occasionally opened the door for it to enter with the left. There is a charming winter-flowering aconite that should be grown in every garden; its flowers are pale yellow, and it is known as *Eranthis hyemalis*, Parkinson's name being *Aconitum hyemale*. This is the "counter-poison monkshood," the roots of which "are effectual not only against the poison of the poisonous helmet flower, and all others of that kind, but also against the poison of all venomous beasts, the plague or pestilence, and other infectious diseases, which raise spots, pockes, or markes in the outward skin, by expelling the poison from within, and defending the heart as a most sovereign cordial."

Apart from the consideration of its possible and actual mischievousness, the monkshood is a noble border flower. It grows to a height of three to four feet, the upper half of the strong stems being closely beset with hooded flowers of a fine dark blue colour, elegantly accompanied with leaves that are deeply and distinctly cut into narrow-pointed segments. Its name, *Aconitum napellus*, is derived from *Aconæ*,\* the supposed place of its origin, and *napus*, a turnip, from the likeness of its roots to the long white

\* Theophrastus so derives it, from Ἀκόναι, but Ovid derives it from ἀκόνη, as growing on sharp steep rocks. But as all the species require some depth of good soil, the reference of Ovid must be to some other plant.



turnips that were formerly grown, but are now but rarely seen in this country. Amongst the allied plants that are worth a place in the herbaceous border, and more particularly in the front of the shrubbery border, the following deserve special mention, as they are handsome and by no means likely to prove hurtful to life, as the common monkshood always is:—*Aconitum autumnale*, height three feet, flowers pale blue; *A. japonicum*, like the last, but of a fuller blue; *A. chinense*, height five feet or more, flowers brilliant blue—a splendid plant, requires a dry, warm border, and shelter; *A. lycoctonum*, height four feet, flowers creamy yellow; *A. variegatum*, height four feet, flowers blue and white, a fine plant. All these thrive in common garden soil. Those who have peat soil may add to the list *A. paniculatum* and *A. septentrionale*; the first has flowers blue and white, the second reddish lavender.







STRIPED PETUNIA.





## THE PETUNIA.

*Petunia phœnicea.*

PETUNIA PHŒNICEA is unknown in the land of the Phœnicians, being a native of Buenos Ayres, whence it was introduced in 1831. As a matter of course, the spirited maritime nation who built Tyre and Sidon, and who in their day were proud of their King Hiram, friend of Solomon, knew nothing of any kind of petunia, because, to use the language of a familiar song, the New World “had not then been invented.” And yet in a certain way, by the involutions of language, this plant takes us round by way of South America to the eastern shores of the Mediterranean, for it is a Phœnician flower, and rightly named, and we are bound to connect it with the intelligent sailor race who brought the ideas and the gold of the east to the southern and western coasts of this country, and took away in exchange the tin of Cornwall, and the report of our wealth of timber and the suitableness of these isles for colonisation.



The Phœnicians found on their coast an abundance of the mollusk (*Nassa purpura* of naturalists), from which they extracted a purple pigment. This became to them an important article of trade, and the world resounded with the praises of "Tyrian dye." The ancients had not many colours, and it was but natural the Greeks should name the purple they so much esteemed after the people who produced it. Thus it became known to them as the "Phœnician colour," and the Romans subsequently modified the term, so that with them it became the "Punic colour." Thus the botanist has been provided with a choice of two (in addition to many more) terms available for the indication of the colours of flowers. This purple or crimson flower of South America he has named *Petunia phœnicea*, and the brilliant glory pea of New Zealand he has named *Clianthus puniceus*, which, of course, was no more known to the Tyrians and Sidonians than the flower before us.

The petunia is almost a tobacco, and it will interest the observant loiterer in the garden to compare it with the noble Virginia tobacco, which is well worth growing for its stately carriage and beautiful flowers. Indeed, the petunia is a tobacco, for its Brazilian name *petun*, from which is derived petunia, means tobacco, and it is fair to suppose that, if the plant were dried and prepared, it would be found to possess distinctly fragrant and narcotic properties. A sheet of petunias in full flower is a glorious sight, and the odour the flowers emit when the sun shines full upon them is agreeable, but the plant is not a nice one to handle or examine; its leafage is unhandsome, its habit ungainly, its substance is clammy, and certainly does at times give the nose a reminder of tobacco.

The systematic crossing of a few distinct species of petunia has resulted in the production of a number of splendid varieties, which are invaluable as garden plants. The showy single white, purple, and striped kinds may be raised from seed sown on a hot-bed in March, and if planted out in May will flower superbly as the season advances. Treated in this way, the petunia is one of the cheapest and grandest of annuals, and as it makes a sumptuous bed, the owner of a country garden may turn it to good account, especially where the soil is hot and sandy, for this suits the plant perfectly. The double varieties make magnificent pot plants, and require precisely or nearly the same treatment as geraniums, the two grand points in their management being to train them with care and keep them short and leafy to the bottom. They require a light rich soil, and to be safe from all extreme conditions, more especially from extreme heat, for when unduly forced they become infested with vermin, and if they cannot be quickly cleansed by means of tobacco smoke, they may as well be destroyed, for when they have once gone wrong to any serious extent they never recover. Reasonable care, however, will prevent any such mishap, and, as remarked above, the matter of main importance is to guard against extreme conditions. It is especially worthy of remark that the petunia is more hardy than the geranium, perhaps even a trifle more hardy than the calceolaria; hence it may be planted out somewhat early in May if the weather is cloudy and genial, and if the plants escape harm from frost—as with a little care in sheltering they will—they will soon make a free growth and shake off any trace of aphis or other insect pest they may have been troubled with, and make an early and

splendid bloom. It is usual to peg them down when in beds, but they thrive better and look better when allowed to stand up, and therefore petunias are well adapted to form low flowery hedges in the flower garden. In Paris they are much employed in this way in combination with white "marguerites," the result being a dense hedge of about a foot to a foot and a half in height, composed of two close lines of purple and white flowers. When enclosing a small plot of grass this is very effective.

The named varieties are propagated from cuttings in July and August without the aid of artificial heat. The best place wherein to winter them is a cold dry pit, for damp is death to them; they cannot endure a touch of frost, and, generally speaking, the greenhouse is too warm. When kept sufficiently cool they are entirely free from vermin; indeed, the amateur gardener may with advantage regard as a doctrine that the liability of a plant to the attacks of vermin is in direct proportion to mismanagement in respect of temperature and moisture; generally speaking, when a plant becomes covered with "fly" or "spider," it is the consequence of insufficient ventilation.











WHITE LILY.





## THE WHITE LILY.

*Lilium candidum.*

THE common white lily is one of the noblest as well as commonest flowers of the English garden, and a *beau idéal* of the tenantry of the terrestrial paradise of the delectable Lady Corisande. Its manner is that of a wilding, for if a few scales broken from a bulb are scattered about a garden, some of them will become true lilies in time; and wherever it is planted and left alone for a few years, it justifies the confidence reposed in it by flowering freely, and increasing by the formation of new bulbs, so that small clumps become large clumps, and may be periodically divided. But it is not a wilding here, and is but rarely met

with as an escape from the garden. It is a native of the interesting country called the Levant, and as the Levant includes Palestine, it is by no means improper to consider this as the "lily of the field" referred to by our Lord in the Sermon on the Mount (Matthew vi. 28). If, however, we seek for a distinct flower as *the* lily of the Holy Land, we must take note of Canticles vi. 2, where the lily is

associated with spices, and this lily has a powerful and spicy odour that exactly answers to the suggestion of the text. Thus the white lily may be the lily of Solomon, because of its powerful fragrance, but the Gospel lily need not be scented, but must be glorious in apparel, comparable with this splendid monarch. It happens then that the Martagon Lily (*L. chalcedonicum*), which is almost devoid of odour, but produces flowers of the most brilliant scarlet, like the robes of Solomon, grows in profusion in the Levant, and is especially abundant about the Lake of Gennesaret, on the plains of Galilee, and the pastures on the borders of the desert. But it must also be borne in mind that the *shushan*, or lily of Scripture, may be rendered "rose" or "violet" with propriety, and probably had a very broad meaning, so that we might read, "Behold the flowers of the field, how they grow," without in the slightest degree misrepresenting the purpose of our Lord. The word "lily" is of unknown origin, and in all its older forms is of general application, and therefore we cannot hope to identify with certainty any flower so called in ancient and especially Eastern documents. It is none the less interesting, however, to note how admirably these two lilies answer to the two references cited, so that we may, without resorting to invention, regard the scarlet martagon and the common white as *par excellence* the lilies of Scripture.

It is a question of some interest why the white lily was dedicated by the Romish Church to Mary the mother of Jesus, and hence employed on the 2nd of July in connection with the celebration of the Visitation of the Blessed Virgin. The delicate whiteness of the flower renders it in this respect appropriate; but it is worth considering, too, that it is the only flower distinctly mentioned by the Founder of



the Christian faith, for, notwithstanding the comprehensive meaning of the word as it comes to us in the text, it has been, as a matter of fact, generally restricted to a particular flower. This dedication of the lily to the Virgin has certainly contributed in a very material degree to the diffusion and popularity of the plant; and the traveller in Ireland will, in the season of lilies, soon learn to distinguish the houses of Romanists and Protestants by the lilies in the gardens, for while the first plant the white lily as an emblem of their faith, the second plant the orange lily for a similar purpose, although the last is in reality much more of a political than a religious emblem.

The white lily will thrive in any fairly good soil, but to ensure a free growth and an abundance of flowers the soil should be rich and deep and moist. It is a good practice, therefore, to prepare for the plants suitable stations, and, having planted them, the next best thing to do with them is to leave them undisturbed for several years. It is often thought that lilies love the shade, but that is a mistake; they love the sun and a free circulation of air about them. In cold and exposed places the white lily often fails to flower, owing to the destruction of the incipient flower-buds by frost, in the month of May. Hence shelter from the keen east winds is an aid in lily culture, as is also a plentiful supply of water during the month of June, when the stems are rising. In respect of taste, the white lily should be so planted that its shabby stems may be concealed, for when wild it grows amongst tall grasses, and hence it is that as the flowers expand the leaves below them usually wither. The dashing *Tritoma* and the quiet *Agapanthus* are good plants to associate with lilies, for they agree in character, and supply ample and elegant green leafage.



It is not generally known that the common white lily may be grown to perfection in pots, and is well adapted for forcing. Its great decorative value, and its emblematic character, enhance its importance as a plant adapted for culture under glass, to supply its charming flowers at an earlier season than they customarily appear in the open garden. When grown for this purpose, the bulbs should be potted in August, in a compost consisting of about three parts mellow turfy loam, and one part each of rotten hot-bed manure and sharp sand. Frame culture should suffice until the end of February, when the plants may be removed into a light airy greenhouse, and should never have a temperature higher than the average of greenhouse plants. This, with full exposure to light, and abundant ventilation, will ensure an early and a vigorous bloom.





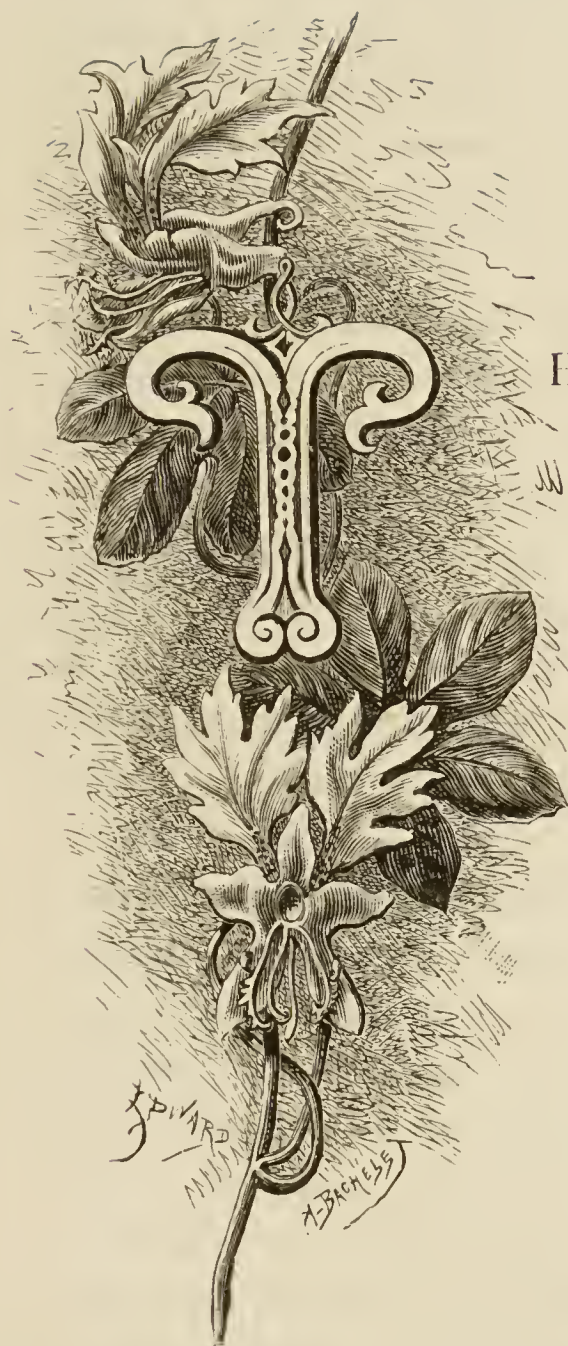


CANARY FLOWER.



## THE CANARY FLOWER.

*Tropæolum canariense.*



HIS remarkably pretty creeper is known in gardens as *Tropæolum canariense*, but its recognised botanical name is *T. aduncum*, or, in the older books, *T. peregrinum*. The first and commonest name suggests that it is a native of the Canary Islands, and it may indeed have come to us from thence, but its home as a wilding is New Granada. The yellow colour may justify the name, for not only is the canary-bird yellow, but canary wine is of a golden hue; and as the Canary Islands were the “Fortunate Isles” of the ancients, we may suppose

them to be—as Dick Whittington expected to find London streets—paved with gold. Strange to say, if the case is considered philologically, a Canary Isle is an Isle of Dogs, for Juba so named one of the group because of the large canine animals he found there, as he named another of them Nivaria, the Snow Island,

because it is crowned with the peak that is now called Teneriffe, which at times is capped with snow. It is proper to remark, however, that not only is the flower before us of a canary colour, but it bears some resemblance to a bird, and in this respect is as curious in its mimicry as any of the orchids. Its second name refers to the hooked termination of the nectary; and its third name indicates that it is a wanderer, a happy vagabond, a plant that loves to climb the wall and tumble over in the next garden, or, if it gets hold of the trellis next the summer-house, will stretch and pull and clamber until it can peep in at the little window and say "How d'ye do?" at the very moment when you don't want to be disturbed. But this *Peregrinum* must be allowed to indulge in its peregrinations, for the joy of the thing is its rampant, rambling, and ill-regulated ambition to overstep everything and everybody.

We miss here one of the prominent characteristics of the *tropæolums*, the leaves of which are mostly circular and peltate and like a buckler, while the flower is like a helmet, and thus together they constitute a trophy, or *tropæum*. The canary creeper has five-lobed leaves and bird-like flowers, and a style of growth that separates it from the typical *tropæolums*. Its rapidity of growth is remarkable, as also is its tendency to be eaten up by the little mite known as the "red spider," when hot, dry weather has prevailed a few weeks. Like the general run of vagabonds, it is not particular about its life-conditions, and having no stamina, it soon breaks down when things go wrong.

The uses of such plants are many. The peculiar light green leafage, dotted with yellow flowers, renders this very

distinct amongst the fast-growing trellis and bower plants that love to climb high and toss gay garlands in the air. The canary creeper may be used with effect to clothe low-growing trees of spare habit, as it will soon run up into the midst of them and make them gay with golden streamers. Care should be taken never to carry this sort of gardening too far, because a valueless creeper, that lives but a few months at the most, should not be allowed to injure a tree that has perhaps a lease of a century to honour by profitable occupation of the ground.

The plant before us is a half-hardy annual, and is therefore grown from seeds that are, in the first instance, protected from the weather, and afterwards planted out. The best way to raise all such plants is to sow the seed in the spring on a gentle hotbed in light, rich, and rather fine soil, and when the plants are large enough to handle, to prick them out two or three inches apart in boxes filled with similar mellow soil, or to pot them separately in small pots. In any case, when thus transferred from the seed-pan they should be nursed under glass for a time in a greenhouse or frame, and be gradually hardened by exposure to the air, to prepare them for planting out. The time of sowing and the details of management must, in some degree, be determined by the nature of the plant. It is not too early to sow seed in February in some cases, but in others March and April are early enough. In the case of the canary creeper, it is folly to sow before April, because the plant grows rapidly when put out, and it is troublesome if it grows to some size previously. For filling the seed-pans and the boxes in this preliminary culture, a mixture of mellow loam, old hotbed dung rotted to powder, equal parts, with a half part of silver sand, will answer perfectly.



It should be free from worms, and moist enough without being wet—in fact, a good test of a potting compost is that it may be handled without soiling the fingers. Where there is no accommodation for raising half-hardy annuals under glass, the seed may be sown where the plants are required in the open ground, but this should not be done until the end of April.

In the “Loves of the Plants,” by the elder Darwin, the *tropæolum* is the subject of a fanciful description, in which the poet contrives to inform us that the flower has eight stamens and one pistil, and that it occasionally emits flashes of phosphoric light :—

“Ere the bright star which tends the morning sky  
Hangs o’er the flushing east his diamond eye,  
The chaste *Tropæo* leaves her secret bed ;  
A saint-like glory trembles round her head ;  
Eight watchful swains along the lawns of night  
With amorous steps pursue the virgin light ;  
O’er her fair form the electric lustre plays,  
And cold she moves amid the lambent blaze.  
So shines the glow-fly when the sun retires,  
And gems the night air with phosphoric fires ;  
Thus o’er the marsh aerial lights betray  
And charm the unwary wanderer from his way.”







PHLOX.



## THE PHLOX.

*Phlox paniculata.*



ARDEN phloxes are compounds of several species, and but little of their origin is distinctly traceable in their styles of growth and flowering. It will suffice to say that the so-called *Phlox decussata* and *P. pyramidalis*, to which most of the garden phloxes are referred, have no proper existence as species, and for the cultivation and classification of phloxes it is best to consider the habit (whether tall, dwarf, or intermediate), the time of flowering (whether early or late), and the colour and general style of the flowers, those that are large and circular and produced in

dense masses being the best. The florist is chiefly concerned with their decorative qualities, and will have abundant reason to be gratified, provided he has first secured a good collection, for the varieties that have been produced by cross-breeding within the past ten or twelve years are

remarkable for perfection of form and exquisite colouring. In self-coloured purple, crimson, and salmon-tinted, and in oculate flowers that have white grounds and centres delicately stained with rose, carmine, and ruby, this class of plants is extremely rich. Of pure whites there are not many of good quality, and we have as yet no scarlet, no yellow, and no blue phloxes. We may, however, hope for scarlet and blue, because in some of the later varieties these colours are nearly realised, but we can hardly hope for yellow, since nowhere in the genus is there any strong leaning that way. As the case stands we have command of a sumptuous series of summer and autumn flowers, and it is but the simple truth to say that the florists' phloxes have pre-eminent claims on the attention of amateurs, because of their splendour, their hardiness, cheapness, and extreme usefulness, whether to exhibit, to cut from for decorations, or to enrich the garden with their noble panicles of many-coloured flowers.

As to the employment of phloxes in the garden, there is no method so effective as to dot them about amongst trees and shrubs, keeping them, of course, in the foreground, and ensuring them a sufficiency of air and light. As border flowers they are invaluable; but the least interesting way of growing them is in large compartments of phloxes only, as we see them in nurseries, and in the gardens of amateurs who give them particular attention for the purpose of exhibiting them. When well grouped on the exhibition table they are altogether delightful, but a great lot of phloxes in a lump, as it were, in the garden is like a mouthful of honey—too rich to be enjoyable, and likely to choke one.

The cultivation of the phlox is a very simple affair.

The plants being left in the ground all the winter take no harm, and begin early in the spring to grow. When the new shoots are about two inches high, the roots may be lifted and divided, and planted again in freshly-dug and liberally-manured ground. In their new stations they may be allowed to stand two or three years, and should then be taken up, divided, and again planted. This we may call the rough-and-ready way, and it has for many years past been our way with a collection comprising over a hundred varieties. When grown for exhibition, a fresh stock should be planted every year in well-manured turfy loam, and if the summer should be hot and dry, the plants should have liberal help from the water-pot. In making plants for ordinary purposes it is quite sufficient to pull off rooted pieces, but when stock of some particular sorts is required in quantity, the old stools should be potted and gently forced, and the tops should be made into cuttings and struck in a gentle heat. By this mode of procedure one plant may be made the parent of hundreds, because propagating may be continued until far into the month of May, and the plants will flower the same season, though late perhaps. To grow fine phloxes the two important points are to renew the plants frequently and feed them well. To raise phloxes from seed is an equally simple affair. First secure your seed, as Mrs. Glasse might say ; and if you begin with first-rate sorts you will not get much. Our plan has been to sow in pans as soon as the seed was fully ripe, and keep the young plants in a pit through the winter. But it will suit amateurs better to sow in spring, and we must advise keeping the seed-pans under glass until the plants are forward, when they may be planted in an open nursery-bed to flower. They should



not be planted in the borders until they have flowered and proved to be worth keeping.

The pretty *Phlox Drummondii* is so surprisingly beautiful that we cannot but regret it is seldom seen in English gardens. It is the more valuable now that the distinctive colours are easily secured by sowing well-saved seeds, so that as a bedding-plant it is not only one of the loveliest, but certainly one of the cheapest. If the seed is sown at any time between the middle of March and the middle of April, and started in a gentle heat, the usual nursing of a half-hardy annual will suffice to ensure strong plants to put out at the end of May, and this being accomplished, there is nothing more to be done, for the showers and sunshine will do the rest. In burning summers (of which, unfortunately, we have but few) this lovely plant holds its own as well as any border plant in cultivation. When verbenas and calceolarias have been roasted too brown, and even scarlet geraniums are beginning to cry for something to drink, Drummond's phlox appears to be unconcerned, and goes on blooming as if the hot weather had been ordered for it.







MICHAELMAS DAISY.



## THE MICHAELMAS DAISY.

*Aster amellus.*



MICHAELMAS DAISIES are not in high repute, for they are not well represented in gardens. A certain number of coarse, weedy sorts have obtained entrance, and have spread far and wide ; and when, by the artistic eye, they are weighed in the balances and found wanting, the whole race is condemned for their defects. But there are in cultivation some truly noble kinds, and many that are beautiful and useful if not noble ; and their value is in some degree enhanced by the fact of their flowering late in the summer when the gaiety of the garden is overpast. From August to the close of the year is the season of

the Michaelmas daisies ; one of their number (*Aster grandiflorus*) is called the "Christmas daisy," because of its late flowering, and it is not at all uncommon for them to fight the frost night after night as the season wears on, and come out triumphant at last in unfolding to

the declining year all their starry flowers. Dante alludes to the struggle of flowers with frost in the second canto of the first book of the "Divine Comedy," as representing his own case when overcome by the inspiration of Beatrice:—

"As florets, by the frosty air of night  
Bent down and clos'd, when day has blanch'd their leaves,  
Rise all unfolded on their spiry stems;  
So was my fainting vigour new restor'd,  
And to my heart such kindly courage ran,  
That I as one undaunted soon replied."

Chaucer had made note of the fact as a theme for poetry, and it touched the vein of tenderness which was so peculiarly his:—

"But right as floures through the cold of night  
Iclosed, stoupen in her stalkes lowe,  
Redressen hem agen the sunne bright,  
And spreden in her kinde course by rowe."

*Troil. and Cress. II.*

A large proportion of the plants classed as Michaelmas daisies are natives of North America, and therefore are hardy enough for any part of the British Isles. They may be more properly regarded as perennial asters, for such they are when their season of flowering, as remarked above, is of some four or five months' duration. They are among the most accommodating plants of their class known, being truly indifferent as to soil and situation, provided they have something to live on and are blessed with a glimpse of sunshine at some part of the day. But they are like many other accommodating plants in the fact that they make a far finer show of their flowers in a good soil, a pure air, and a sunny situation, than when overshadowed by trees and with exhausted earth for their sole sustenance. The larger and bolder kinds are

fine shrubby plants, and some of the smaller unattractive kinds are worth growing to cut from, for their clusters of little stars are often useful for decorative purposes, though as seen in the garden they may be inconspicuous and of small account.

The safest rule of classification appears to be found in the relative heights of the plants. Beginning with the smallest, we have a charming thing in *Aster alpinus*, the blue daisy of the Alps, a plant which in gardens grows to a height of six inches, producing large blue flowers, but in the mountain pastures is too short to rise above the fine grass, amidst which its flowers appear like large blue daisies.

“Star of the mead! sweet daughter of the day,  
Whose opening flower invites the morning ray,  
From thy moist cheek, and bosom’s chilly fold,  
To kiss the tear of eve, the dewdrops cold.”

Other useful dwarf kinds are *A. attaicus*, with rosy purple flowers; *A. patens*, purplish-blue; *A. sericeus*, deep blue; *A. versicolor*, white changing to pale purple; *A. dumosus*, pale lilac-blue.

Another series adapted for second and third rows are the following:—*A. amellus*, flowers blue with yellow disc, one of the best; *A. dracunculoides*, purplish-blue, fine; *A. fragilis*, flowers white, changing to rose or purple; *A. lævis*, purple with yellow centre, useful and good; *A. laxus*, pale blue, fine; *A. pendulus*, white, changing to rose; *A. pyrenæus*, lilac-blue with yellow disc; *A. turbinellus*, delicate mauve, a handsome plant. In this section occur the most generally useful kinds.

Amongst the taller sorts suitable for planting amongst shrubs and in the reserve garden the best are *A. cordifolius*,



flowers early, white or pale violet; *A. elegans*, purple and white, useful to cut from; *A. grandiflorus*, violet, late, very handsome; *A. longifolius*, purple-blue, showy; *A. multiflorus*, small white flowers in elegant bouquets, most valuable to cut from; *A. nova-anglicæ*, late flowering, very tall, flowers violet and purple; *A. obliquus*, late flowering, white with purple disc, coarse, but in its way superb.

A score or even fifty more may be found by those who need them, but the foregoing will suffice to stock a large garden with the most distinct and handsome kinds that need no special care when once they have been properly planted.

“Last smile of the departing year,  
Thy sister sweets are flown!  
Thy pensive wreath is far more dear  
From blooming thus alone.

“Thy tender blush, thy simple frame,  
Unnoticed might have passed;  
But now thou com’st with softer claim,  
The loveliest and the last.

“Sweet are the charms in thee we find—  
Emblem of hope’s gay wing;  
’Tis thine to call past bloom to mind,  
To promise future spring.”

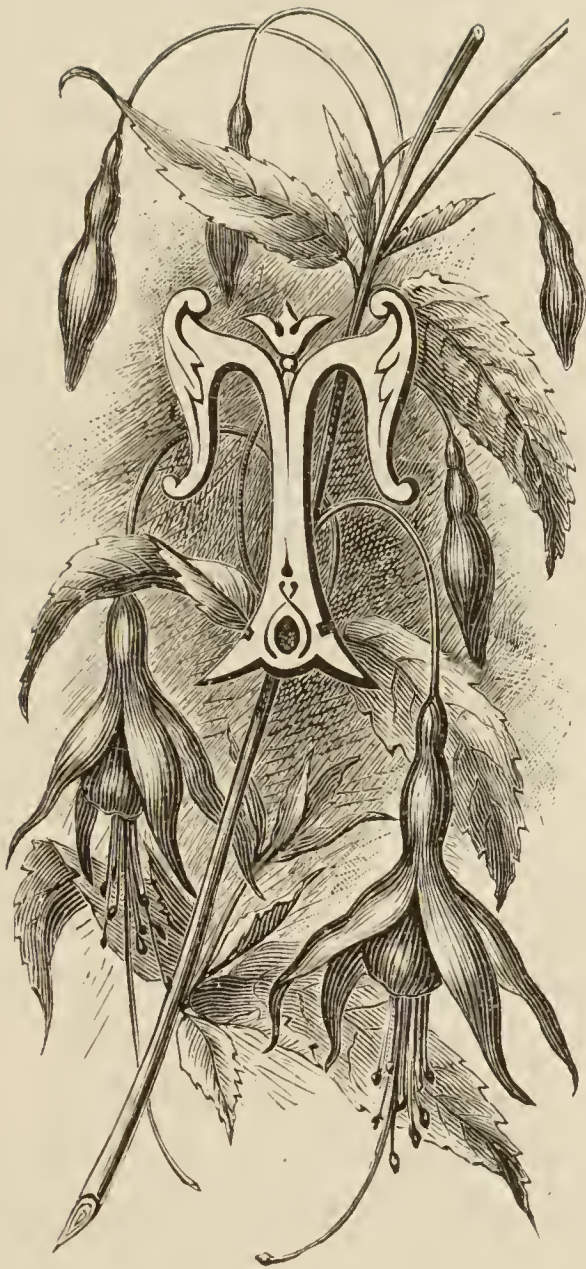






SINGLE FUCHSIA.





## SINGLE FUCHSIA.

*Fuchsia gracilis.*

HE fuchsia is too modern a flower to have a great history, but what is known of it historically is full of interest. Strictly speaking, it is not so modern as is generally supposed, for it begins with the adventures of Father Plumier, who was born at Marseilles in 1646. At the age of sixteen Charles Plumier was admitted to the religious order of Minims, and under the training of Father Maignan he soon became an expert mathematician and a practical turner. He wrote a remarkable book on the art of turn-

ing, and might have continued turning and calculating, save that he had injured his health by too close application, and turned to the study of botany for occupation and rest. He soon became a master of this science, and the friend of the great botanist Tournefort. Three several voyages he

made to the West Indies and the American continent in search of plants, and in the capacity of King's Botanist he published in 1695 his first botanical work, "*Description des Plantes de l'Amerique.*" After his third voyage he published in 1703 his "*Nova Plantarum Genera,*" in which occurs the first description of the fuchsia, which he had discovered. In this work a feature of great importance is developed. Plumier dedicated about fifty of the plants he discovered to eminent botanists, by adopting their names as generic designations. Thus he dedicated the plant before us to the memory of Leonard Fuchs, and on him, therefore, we must bestow a paragraph.

Leonardo Fuchs (or Fox) was born at Wembling, in Bavaria, in the year 1501. Early in life he devoted himself to learning and letters; became a convert to the opinions of Luther, and in 1521 graduated as a physician at Ingoldstadt. He was the first German physician whose name became famous in foreign countries; and, strange to say, his fame rested chiefly on his vindication of the system of medicine that prevailed among the early Greeks. He was rather a herbalist than a botanist, and made great but often vain profession of his knowledge of the plants of Dioscorides. His works are now regarded as mere curiosities, of considerable historical importance, but valueless in respect of the science they uphold and teach. The most important of them is the "*Historia Plantarum,*" published at Basle in 1542.

But these relations do not bring the flower "home to us." That was done by a sailor, about a hundred years after the discovery of the plant by the learned monk Plumier. The adventurous tar had brought home from Chili a plant bearing flowers of a kind unknown till then



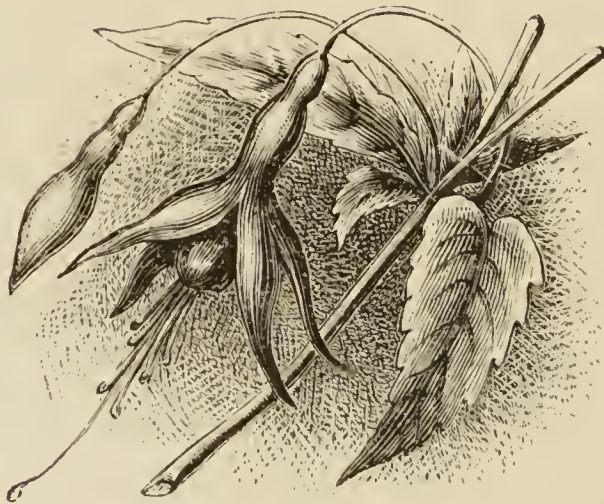
in Europe, and he gave it to his wife, and in the course of time she sold it to Mr. Lee, the eminent nurseryman of Hammersmith. It soon became famous, and as a garden flower the fashion was thus, as we may say, created. And it is worthy of observation that the kinds that were earliest introduced were of such high quality that later discoveries have not eclipsed them. Perhaps the greatest sensation experienced by the floral world in connection with the fuchsia occurred in the year 1847, when Messrs. Veitch obtained their first flowering plants of *Fuchsia spectabilis* from seeds sent home by Mr. William Lobb, who met with it in the Andes of Cuença, Peru, growing at an elevation of four to five thousand feet. But we dare not touch on the floral history of the plant, for we should need years for the study of it, and endless volumes for the text. Nor have we space left for a disquisition on the beauty of the fuchsia, and therefore have determined to follow a good example. A lean curé dined with a fat bishop, who first gave the curé a very poor *vin ordinaire*. But the curé praised the miserable wine, and astonished the bishop, who now determined to astonish the curé. So he brought forth his wines of rare vintage, and watched for the effect, but the curé spoke not a word. "What," said the bishop, "you praise my meagre *vin ordinaire*, and you say nothing of the wine now before you!" "Pardon, monsignor," replied the curé; "the wretched wine you first gave me needed praising; but this—this speaks for itself."

Ladies and gentlemen, as regards the elegance and freshness of the fuchsia it is not needful to speak—*it speaks for itself!*

In sheltered gardens in all the southern counties, and in some places even north of the Trent, the beautiful



named fuchsias that are grown in the greenhouse may be planted out, and will pass through the winter safely if slightly protected, except in those seasons when the frost is unusually severe. Large old fuchsias may be turned to grand account in this way. The soil must be rich and mellow, and the plants must have abundant supplies of water; and if valued for their strong stems they should be lifted in November and be stored away in a greenhouse or a cellar, to be planted out again in May. If allowed to remain in the ground they should be cut down and a little cone of coal ashes piled over them. For permanent features the hardiest fuchsias are *F. coccinea*, *F. gracilis*, *F. virgata*, *F. globosa*, and *F. Riccartoni*. Of *F. spectabilis* we shall shortly give a description.









CHRISTMAS ROSE.





## THE CHRISTMAS ROSE.

*Helleborus niger.*

AMONGST the “old-fashioned flowers” that one might look for in the little out-door paradise of Lady Corisande, there would be none more worthy of care and honour than the Christmas rose. It is quite a proper thing for a Londoner fond of flowers to visit Covent Garden Market at an early hour on a morning of December to see the Christmas roses that are offered for sale. They appear in surprising quantities, and the visitor unused to the ways and doings of the market will ask, “Where

do they come from?” But their size, their perfection, their perfect purity of colour are more surprising than their number, and he will perhaps ask a second question, “How is it done?” And thereby hangs a tale.

The Christmas rose is one of the easiest plants to grow, but when left entirely to itself it flowers late, and the flowers are much torn and discoloured by the unkind

weather that usually prevails in its flowering season. The plant is a native of Southern Europe, and needs for its perfect development better conditions than are usually secured for it in English gardens, more especially as it flowers at a time of year when the elements are in a mood to make war upon every green herb, and tear away the one last leaf that still hangs upon the tree. To put this plant in a common border is not quite fair to it. A sheltered nook should be chosen, and a plot of ground prepared by draining it thoroughly, unless it is naturally well drained already, and by deep digging and liberal manuring. It does not need any particular kind of soil, for any fairly good garden loam will suit it perfectly, but the station should be well prepared, and the plants should be put out upon it when their leaves are dying down, and they are going naturally to rest. Sheltered, half-shaded, grassy banks answer admirably for plantations that are to be left to flower naturally, but the plantation in the sheltered nook we are now considering is not to be left to flower naturally. As soon as they begin to push in the late autumn they should all be covered with frames or hand-lights, which must be freely ventilated in mild weather, but during frost must be kept close, both to prevent a check and protect the flowers. By such management early flowers will be secured, and they will be large, thick, and pure. Like those of the white Japan anemone, they may be likened to water-lilies, but they need not be likened to anything—it is enough to know that they are Christmas roses. An anonymous poet, weaving the “winter rose” into the garland of his hopes and cares, has indulged in the fancy that the flower is fragrant, but it requires quite a poet’s imagination to extract an odour from the flower.



“ Alas! on thy forsaken stem  
My heart shall long recline,  
And mourn the transitory gem,  
And make the story mine!  
So on my joyless winter hour  
Has oped some fair and fragrant flower,  
With smile as soft as thine.

“ Like thee the vision came and went,  
Like thee it bloomed and fell,  
In momentary pity sent  
Of fairer climes to tell;  
So frail its form, so short its stay,  
That nought the lingering heart could say,  
But hail, and fare thee well!”

In the growth of the new taste for hardy plants, which we may regard as a revival of old-fashioned gardening, the hellebores have obtained a fair share of attention, and they now constitute a very important feature of the hardy garden. As the trumpet daffodils are called “Lent lilies,” so the spring flowering hellebores are called “Lent roses.” One of the most interesting of the late flowering kinds is the sweet hellebore (*Helleborus odoratus*), which produces pale green leaves, and greenish drooping flowers which are agreeably scented. The Olympian hellebore (*H. Olympicus*) is a handsome plant, producing purplish flowers. The Oriental hellebore (*H. Orientalis*) is strikingly handsome, the flowers being large, of a soft rose-colour, and accompanied by an ample and elegant leafage. The purple hellebore (*H. atrorubens*) produces beautiful flowers, which at first are violet-purple, and afterwards dull purple, with an admixture of green. There remain two fine species that are particularly well adapted to plant in woodland walks. They are *H. abchasicus*, with greenish flowers, and *H. fœtidus*, with greenish-purple flowers. These have hand-



some winter foliage, and there should be a few clumps of each in spots where they are likely to be seen during a walk round on a sunny winter day.

A few beautiful garden varieties have lately been introduced from the Continent, and have found much favour with English amateurs. They are mostly of German origin, and are produced by crossing the purple and green flowered species, the result being in some cases flowers richly spotted, and of various shades of greenish-white, maroon, purple, and purplish-rose. The conspicuous yellow stamens, which contribute so much to the beauty of the white-flowered Christmas rose, are distinct and welcome features of these new varieties of Lent roses, adding an element of cheerfulness that compensates for their otherwise dull colouring, for the colours of the petals are in all cases toned down by infusions of green and purple that render them impure. A collection of hellebores may now be looked for in every garden of hardy plants, to combine with the daffodils to "take the winds of March with beauty."







LAVENDER.





## LAVENDER.

*Lavandula vera.*

THE word will often transport us into flowery fields and restore happy days that have long since fled. To many of the older sort the word lavender is as good as a charm, if it only recalls the old plaintive strain of once familiar street music. This tame-looking, grey-green, stiff, sticky, and immovable shrub holds as much poetry in its wiry arms as would fill a big book; but that is no matter if it has helped to fill a heart with gladness, for the filling of a book is but a piece of mechanical trickery. A most famous plant is the lavender, as may be seen by reference to any of the older herbalists, more especially Parkinson, Gerarde, and Johnson.

In a notice of the plant in a popular work occurs—what is very common in “popular works”—a showy but most egregious blunder in respect of one of the “associations” of lavender. It is affirmed by the writer that the plant grows in Syria, and furnished the “ointment

of spikenard" with which Mary anointed our Lord in Bethany. Let us suppose the two statements to be correct, and then what becomes of the protest against a supposed act of extravagance—"it might have been sold for three hundred pence"? The produce of a common weed of the country could never have acquired such a value, and the protest necessarily suggests that the ointment of spikenard was the produce of some far-distant land, and obtainable only with cost and difficulty. Such, indeed, is the case. The spikenard of the New Testament and of Canticles i. 12 and iv. 13 was imported into Palestine from the far East, the plant producing it being the *Nardostachys Jatamansi* of De Candolle, a plant spoken of by Dioscorides as the *Nard* of the Ganges—the *Sumbul* or *Sunbul hindac* of the Arabs to this day. Lavender, indeed, grows in Syria, for the genus *Lavandula* is essentially Mediterranean, but it was not the spikenard of antiquity.

The commonest uses of *Lavandula* connect it with the lavatory, both words deriving their origin from *lavo*, to wash; the plant being as much prized in ancient times as now for its refreshing perfume and cleansing properties. Herein is the secret of the commercial importance of lavender, of which immense quantities are grown near London for the purposes of the perfumer.

The common lavender (*Lavandula vera*) is the species grown in the Mitcham and other districts, as the oil yielded by its flowers, although not so large in bulk as that produced by the flowers of *Lavandula spica*, is of much finer quality, and is alone employed in the manufacture of the finest perfumes. The oil obtained from the last mentioned of the two species is rather green in colour, and is commonly known as spike oil, or foreign oil of lavender.

It is chiefly used for painting, but a considerable quantity finds its way every year to the second-class manufactories, where lavender-water and other perfumes, of which the base is the essential oil of lavender, are prepared, and this in its turn is sometimes adulterated with spirits of turpentine. The harvesting of the flowers takes place at the end of July or the beginning of August, according to the season, the proper moment for cutting the spikes being just as the flowers are opening, as they are then more powerfully aromatic, and consequently yield an oil of greater value than when fully expanded. The cutting is done with the sickle, and every care taken to immediately pack and tie up in mats, for when exposed to the rays of the sun for any length of time after cutting, the yield of oil is materially reduced in consequence. The flowers cannot, indeed, be sent to the distillery too quickly after their removal from the plants. Large quantities of lavender flowers are sent to Covent Garden annually, and from thence find their way to the shops and costers' barrows, for there is still a demand for them for filling muslin bags to stow away in drawers and cupboards, notwithstanding the facilities which exist for obtaining the essential oil, and lavender-water, and other perfumes into which it enters. The flowers, it should be remembered, are put into drawers and wardrobes to exclude moths, as well as for imparting an agreeable odour to the articles placed in these receptacles. A few drops of the oil will, however, serve the same purpose; and it has been ascertained by experiment that if a single drop is placed in a small box along with a living insect, the insect will be killed almost immediately.

The distillation of the flowers is a business quite distinct from that of their production, and both large and



small growers take their crops to the distillery, and pay a certain rate per ton. The quantity of oil extracted from a ton of lavender varies according to the season, a rather dry and hot summer being the most favourable to an abundant production. From 15 lbs. to 16 lbs. is considered a fair average, and in some years it reaches 20 lbs., but not often. The distilling commences about the 1st of August, and is continued until the end of September or the middle of October, according to the extent of the crop.

In the propagation of a stock of lavender, and in the management of the plantations after their formation, a very simple course of procedure has been found to be the most satisfactory. Propagation is effected by means of cuttings taken in the autumn, October being considered the most suitable month in which to take them. After the shoots selected for cuttings are separated from the old plants, they are left in small heaps on the ground for six weeks, and are then planted. Rooted slips are, as far as possible, taken advantage of for the increase of stock, and when these can be had they are at once planted in the field, at a distance of eighteen inches apart each way.

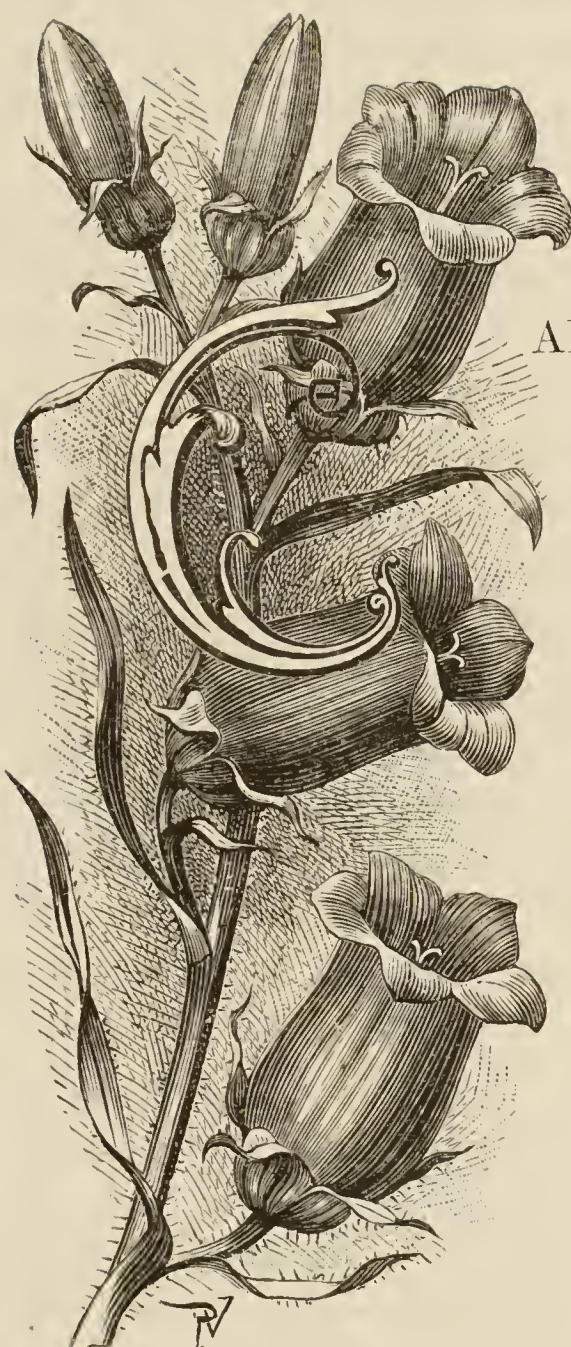






CANTERBURY BELL.





## THE CANTERBURY BELL.

*Campanula medium.*

CANTERBURY BELLS are not so loud in their tone as might be imagined by people who are not bookish. How easy it would be to say that this common flower is figured and described in all the books, and to one who had so committed himself, how terrible would be the shock of a rejoinder to this effect—that it is neither figured nor described in any of the books. Such a rejoinder would, of course, be a trifle too daring; but it is a fact, and one of immense interest to the writer of this, that this very familiar flower has been so rarely figured or described that it will require

some searching to discover any literary recognition of it. But the fact is a key to what we may for convenience term one of the grievances of an important section of the flowery world. The Canterbury bell is a biennial, and

therefore has no right to a place in any of the books. The biennials should make a declaration against this state of things. For the sake of an hour's amusement we have ransacked our library, and found but few allusions to the plant. The botanists say it is not British, and therefore is not one of our wild flowers. *En passant*, we will remark upon this, that we once found a grand plant of the blue variety growing in Bonsal Dale, Derbyshire, and that is our only acquaintance with it as a wilding. The books that treat of annuals ignore biennials, and the books that treat of perennials do the same, and so the biennials are denied benefit of clergy, and there is left to them the final but sufficient consolation that they can do very well without it. That we may not appear heathenish, it is proper to say that the clergy, philologically considered, are not necessarily employed in a sacred office—they are learned men; men who can read and write; men possessed of skill, science, and clerkship. As Blackwood remarks, “the judges were usually created out of the sacred order; and all the inferior offices were supplied by the lower clergy, which has occasioned their successors to be denominated clerks to this day.”

But here is a digression. Well, we find figures of Canterbury bells in Gerard and Parkinson, but it is hard work to make them out, because they are badly drawn and confusedly described. But it is something to say for these old masters that if we want to trace the history of such a common plant we must ask them to help us, because modern authors aim so high that their shafts fly over many common but useful and beautiful things.

It is time to say something about the cultivation of this noble campanula, and it will be consistent with the



foregoing observations that, instead of following in the wake of the blind man who made a fiddle out of his own head, we turn to the pages of a great old master for a code of instructions. In the "Abridgement" of Philip Miller's "Gardener's Dictionary," quarto, 1761, will be found the following:—

"The third sort [*Campanula medium*] is a biennial plant, which perisheth soon after it hath ripened seeds. It grows naturally in the woods of Italy and Austria, but is cultivated in the English gardens for the beauty of its flowers. Of this sort there are the following varieties, the blue, the purple, the white, the striped, and double flowering. This hath oblong, rough, hairy leaves, which are serrated on their edges; from the centre of these, a stiff, hairy, furrowed stalk arises, about two feet high, sending out several lateral branches, which are garnished with long, narrow, hairy leaves, sawed on their edges; from the setting on of these leaves come out the footstalks of the flowers, those which are on the lower part of the stalk and the branches being four or five inches long, diminishing gradually in their length upward, and thereby form a sort of pyramid. The flowers of this kind are very large, so make a fine appearance. The seeds ripen in September, and the plants decay soon after.

"It is propagated by seeds, which must be sown in spring on an open bed of common earth, and when the plants are fit to remove, they should be transplanted into the flower-nursery, in beds six inches asunder, and the following autumn they should be transplanted into the borders of the flower-garden. As these plants decay the second year, there should be annually young ones raised to succeed them."



A note on campanulas in general may be useful. The best of them are hardy border flowers, that need no particular care, and thrive well in any ordinary good soil, but cannot endure to be starved or over-much shaded. In planting a border, preference in the first instance should be given to such sorts as *C. latifolia*, *C. trachelium*, *C. glomerata*, *C. nobilis*, *C. persicifolia*. For the rockery, the most important, to begin with, are *C. carpathica*, *C. garganica*, *C. pumila*, and *C. rotundifolia*. The last-named is the "harebell" of the hedgerow and the roadside and the woodland waste, which we have met with near Hayfield, in Derbyshire, in many shades of blue, white, and pink, but the plants and seeds we saved of the curious varieties lost their distinguishing characters when removed, so that when planted out on raised banks of sandy soil in the garden they all produced blue flowers.

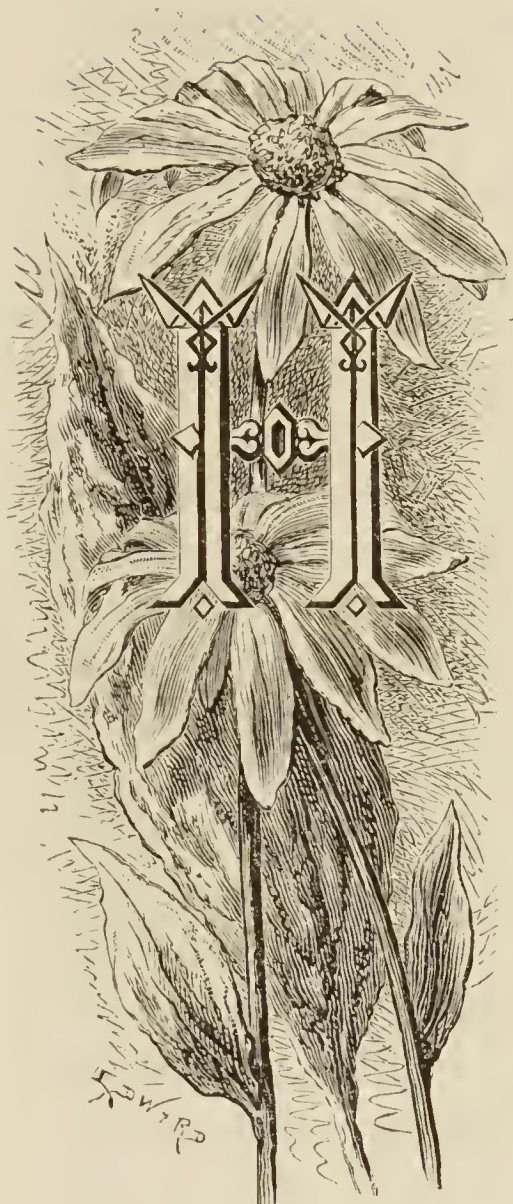






RUDBECKIA.





## THE RUDBECKIA.

*Rudbeckia hirta.*

ARDY herbaceous plants have been rising in public favour during the past ten years or so, but they will never so entirely engross the admiration of the English amateur as certain over-zealous advocates believe and desire. The world is tolerably wise as to what it wants, and it is useless for specialists to go crazy because the world will not implicitly follow their lead.

The truth is, the English garden is a rafter of the English household made up of good things from all parts of the world, and the pelargoniums of the Cape and the

calceolarias of Peru are as worthy of a place in it as the lilies of the Levant or the fuchsias of the Falklands. People who enter upon gardening as a recreation are usually eclectic in their tastes, and are very quick in distinguishing good things from bad ones, and those who seek applause by crying up herbaceous weeds and crying down bedding plants that make the garden grandly gay

in the sunny months when gaiety is needed, will only obtain in the end the pitying smile that is bestowed on the well-meaning fanatic. The Rudbeckias illustrate this case. They are hardy herbaceous, handsome weedy things, that would be of priceless value were we possessed of only a few dozen sorts of garden flowers. But as we can command thousands we can afford to be dainty, and so it happens that two or three species of Rudbeckia are enough for any ordinary garden : the rest may be left over for those omnivorous ones who swallow everything that can be described as “herbaceous” and “hardy.”

The genus to which our plant belongs takes its name from O. Rudbeck, a Swedish botanist. It is wholly American. It is noted in the “Hortus Kewensis” of Aiton that *R. laciniata* was grown by John Tradescant before 1640, and *R. triloba* by Jacob Bobart before 1699. These appear to have been the earliest introduced. *R. hirta*, the subject of the coloured plate, was grown in this country in 1714, and is pretty widely distributed, although the members of this genus have never ranked high as border flowers. They are, however, useful, being at home in any soil or situation, though preferring, if they can get it, a dry sandy loam and a sunny situation. They are all perennial plants, and may be propagated by division and seed. Being rough and gay and conspicuous at a distance, they are admirably adapted for the front line of the shrubbery, and if they do not delight the florists, they will gratify the artists, who always lean considerably towards single composite flowers, if there be some degree of dash in them, as there certainly is in the yellow and orange flowers of the Rudbeckias.

*Rudbeckia Californica* grows to the height of five feet,

and flowers in July; the flowers are of a golden-yellow colour. *R. Drummondii* is of dwarf habit, rising only two feet, flowering from June to September, the flowers rich deep yellow with a band of purplish-brown and a curious brown centre; this is a fine plant. *R. fulgida* rises two feet; the flowers appear in July, they are orange-yellow, the disk purple; a fine plant. *R. hirta* grows two to three feet in height, the flowers appear from July to September; they are of a rich orange-yellow, the disk purplish-brown. *R. laciniata* is of compact habit, height three feet, flowers pale yellow, the leaves elegantly cut; a fine plant. *R. speciosa* is of medium growth, rarely exceeding two and a half feet in height; the flowers appear late, they are orange-yellow with blackish-purple disk. About a dozen more may be found by those who want them—at all events, their names may—but it might be difficult to obtain the plants.

The American continent is somewhat profusely sprinkled with composite plants that flower in the later summer and autumn, and prove perfectly hardy with us. We want the best of them for our gardens, and perhaps there are not many remaining to be introduced, for the botanists have not been idle on the “boundless prairies.” It is the peculiar characteristic of a large majority of these plants that they flower at a season when our native plants are for the most part in a seedy state; and thus they help us through the autumn, when out-door pleasures obtain more of our attention than at any other time.

The botanist in whose honour the Rudbeckia was named by Linnæus was the son of John Rudbeck, a learned Swedish bishop, who aided very materially in the publication of the Swedish Bible, commonly called the



Bible of Gustavus Adolphus, in the year 1618, and was the author of the celebrated "*Privilegia quædam Doctorum*," the production of which, in the year 1636, very nearly proved his ruin. His son Olaf Rudbeck, born 1630, studied at Upsala, and in 1652 held a disputation there on the circulation of the blood, and afterwards made discoveries in anatomy which he rendered public in 1653. In this year he travelled into Holland, but soon after returned to Upsala, where he was, in the year 1658, appointed professor of medicine. As an aid in this study he had previously established a botanical garden, into which he introduced many rare plants from distant places, and thereby afforded an astonishing example of the capabilities of a northern climate.







MARIGOLD.





## MARIGOLD.

*Tagetes erecta.*

LATER illustration of a very humble marigold has suggested homely thoughts, and the result is a merely gossiping paper ; but the showy flower now before us demands a learned treatise, and we must show that we are equal to the inspiring theme. We shall therefore dive into the depths of our erudition, and thence rebound to the highest heights of philosophy, in the endeavour to display to the reader the immensity of our knowledge of marigolds.

A marigold may be regarded as a golden Mary, but the name has no necessary reference whatever to the Virgin Mary, or to any Mary ; it is a corruption of the old Anglo-Saxon *mersc-meargealla*, the golden marsh flower (*caltha*), which is still called the "marsh marigold," although it is really a ranunculus. The marigold proper is a composite plant, and far removed from the ranunculus and all its cup-

flowered relations. In the "Grete Herball" it is called "Mary Gowles." Dr. Prior, in his "Popular Names of British Plants," remarks that "it is often mentioned by the older poets under the name of *gold* simply." Notwithstanding all this, the marigold *became* the flower of the Virgin Mary, if it was not so originally. The name being once corrupted, the association with a personage followed, and in the latest days of history, say the seventeenth century, it became the symbol of Queen Mary. The celebrated Child's Bank, that was so long associated with old Temple Bar, had for its sign the marigold, and the motto AINSI MON ÂME, which necessarily applies to a sunflower. This appears to discomfit us; but no, the marigold *is* a sunflower, quite as much a sunflower as the gigantic American plant that is now known by the name. In the poem by George Wither, quoted at page 63, we read that

"Every morning she displayes  
Her open brest, when Titan spreads his rayes."

In Perdita's garland for men of middle age we find

"The marigold that goes to bed with the sun,  
And with him rises weeping."  
*Winter's Tale*, iv. 3.

In the fifty-fourth sonnet of Drummond we have—

"Absence hath robb'd thee of thy wealth and pleasure,  
And I remain, like marigold of sun  
Depriv'd, that dies by shadow of some mountain."

That the marigold was often regarded as especially emblematic of the Virgin Mary is certain. We see marigold windows in Lady chapels, and we may call them sunflowers if it suits us to do so, but the plant we now know as the sunflower was certainly unknown in Europe

previous to A.D. 1500. The dedication of the flower to Queen Mary would naturally occur to the adherents of her cause, and hence it is not surprising to find in a ballad of her time, as quoted in "Notes and Queries" (S. 5, xii. 418), such lines as the following :—

"To Mary our queen, that flower so sweet,  
 This marigold I do apply ;  
 For that name doth seme so meet  
 And property in each party.  
 For her enduring patiently  
 The storms of such as list to scold  
 At her doings, without cause why,  
 Loath to see spring this marigold."

The flowers known as marigolds represent two distinct genera of composites. The common weedy marigold figured at page 61 is *Calendula officinalis* ; the generic name implying that it keeps pace with the calendar—that is to say, it flowers every day throughout the year, which is very nearly true. The great African marigold is *Tagetes erecta* ; it is not African, but Mexican, as are also the more refined French marigold, *Tagetes patula*, and the fine-leaved and the shining-leaved kinds, *T. tenuifolia* and *T. lucida*. The genus *Tagetes* is named in honour of an obscure Etruscan hero of doubtful pedigree. It seems that Jupiter had a son named Genius, and this Genius had a son named Tages, who taught the Etruscans the art of divination. In the fifteenth book of Ovid's "Metamorphoses" he is thus referred to in connection with the transformation of Egeria :—

"The nymphs and Virbius like amazement fill'd,  
 As seized the swains who Tyrrhene furrows till'd,  
 When heaving up, a clod was seen to roll,  
 Untouch'd, self-mov'd, and big with human soul."



The spreading mass, in former shape deposed,  
Began to shoot, and arms and legs disclosed,  
Till, form'd a perfect man, the living mould  
Oped its new mouth, and future truths foretold;  
And, Tages named by natives of the place,  
Taught arts prophetic to the Tuscan race."

It is a grave defect of the Mexican marigolds that they emit an unpleasant odour, and therefore are scarcely fit for bouquets. The pretty little *T. tenuifolia* (also known as *signata*) is less objectionable than the others in this respect, and, generally speaking, is the most useful of all, because of its suitability for bedding, to take the place in dry soils of that capricious flower the yellow calceolaria. All these Mexican marigolds are half hardy, and therefore the seed should be sown in a frame or greenhouse in March and April, and the plants carefully nursed until strong enough to take their place for flowering in the beds and borders.







BALSAM.





## THE BALSAM

*Impatiens balsamina.*

IN some of the books the plant is catalogued as *Balsamina hortensis*, but as a rose by any other name would smell as sweet, the amateur gardener need not be troubled about the relative claims of the respective designations. The garden balsam is a tender annual of rapid growth, with an extremely succulent stem, ample full green leafage, and showy flowers of various shades of white, red, rose, and crimson. The generic name *Impatiens* is explained by the behaviour of the plant when the seeds are ripe, for, on the slightest touch, the seed-pods burst, and the

seeds are scattered; and this impatience of the plant may occasion to the cultivator considerable loss. But there is a way out of every difficulty, and the only real difficulty is to know the way. In this case it consists in removing the pods when they are nearly ripe, and placing them on a cloth

or newspaper, or in a bell-glass placed mouth upwards, to ripen; then, as they arrive at perfection, the seeds will be shed, and none will be lost, and if the plants were good, the seed will pay for the trouble of saving.

It is a very strange thing, and hardly to be believed, that there is not to be found in any systematic treatise on gardening a really good code of balsam culture. In plain truth, the books are all wrong upon the subject, and as the opportunity is now offered to put them right, we propose to do so. Let it be understood, then, to begin with, that the right way occasions less trouble than the wrong way, and the result is a free development of healthy leafage and splendid flowers. The essence of the proceeding consists in growing the plant generously and somewhat rapidly from the first, and guarding it against any possible check. Suppose we desire to have a fine bed of balsams. We secure the very best seed, and sow it in light rich soil, in pans or boxes, in the month of April. These pans or boxes should be placed on the sunny shelf of a greenhouse, or in a warm corner of a pit, and be kept moderately watered. The plants will soon appear, and as soon as they have about three rough leaves, they should be pricked out, three or four inches apart, in other boxes, in light rich soil; or be potted separately in thumb-pots, and be again nursed in the warm pit or greenhouse, where they should have plenty of air, and never suffer in the least through lack of water. If they grow fast, and the weather is too cold to permit of planting them out, give them a shift into 60 size (three-inch) pots before they become pot-bound, for, as remarked above, there must be no check whatever. When the weather is warm and dull, say about the first or second week in June, plant them out in a sunny position, in rich



deep soil. We have put them at two feet apart, and they have met long before the season was over; but, for a general rule, perhaps one foot distance may suffice. Give them plenty of water in dry weather, and *that is all you need do to them.*

In the event of requiring nice specimens in pots, it will be advisable to sow in March, and start the seeds on a hot-bed; then proceed as advised in raising plants for a bed, but instead of planting them out, keep shifting into larger and larger pots, until it is time to stop, and allow the plants to flower. As a rule, an eight-inch pot is large enough for a very fine plant, and a dozen or two in pots of six to eight-inch size may be turned to good account in the conservatory. When grown in this way, they must have good living and plenty of water, be protected from cold and drying winds, and excessive heat, but always have the fullest daylight and plenty of air. If they appear rather too long in the stem, put them down a little in potting, and the buried portion of the stem will soon throw out roots to the advantage of the flowers that are coming. They require no stakes and no shading, and if the foregoing brief directions are fairly well carried out, *that is all you need do to them.*

The reader may be ready to exclaim, "I see nothing peculiar in this," and the reader who so exclaims is quite in the right. But turn to the books, and you will find a complicated process prescribed, and so in balsam growing the lover of complications may be gratified. Here is an extract from a respectable book of reference, and there is really something in it:—"When you cannot accommodate any but the best flowers in the greenhouse, adopt the following method. After pricking out into three or four-inch pots, and plunging them in the bed, allow the pots to



get full of roots, keep them drier and cooler, and give plenty of air, which will soon cause flowers to appear; then select plants with best flowers, rub every flower-bud off them, fresh pot, disentangling the roots a little as you proceed, and grow them on as advised above; and what you lose in time you will make up in selectness." These directions provide for a check by allowing the plants to become pot-bound, and for another check by the process of rubbing the flower-buds off, so as to compel the plants to produce another crop. And what is the result? Tall, attenuated plants, with poor flowers on the side stems, and no fine flowers anywhere. We see numerous wretched balsams at flower shows that have been grown in this way. Now, let us ask Nature about it, and her reply will be that the finest flowers are the first produced, and appear in the centre of the plant; therefore the removal of the buds is a mistake, and the imposition of any check is a mistake, and there is no balsam so beautiful as the one that has been generously grown and allowed to flower at its own time and in its own way.







YORK AND LANCASTER ROSE.





## YORK AND LANCASTER ROSE.

*Rosa Damascena.*

HY, it may be asked, is this old favourite of the English garden presented as a rose of Damascus? The reason is that the true York and Lancaster rose is a variety of *Rosa Damascena*; and if in this little work we recognise Latin names at all, we must be as nearly correct as possible. There are several distinct roses known as representing the two great families and the healing of their feuds, one of the best known being a variety of *Rosa Gallica*. But

the “proper” symbolic flower is a striped damask rose, with green branches and pubescent leaves, and the habit of the old monthly roses.

As Shakespeare tells the tale it makes a profound impression. We see the foundations of the feud laid in the success of Bolingbroke and the cruel murder of the king as the curtain falls on the fine historical tragedy of “Richard II.” We see it ripen in the first part of “King Henry VI.” in the famous scene in the Temple

Gardens, where the white and red roses are defiantly plucked as party badges :—

“ *Plantagenet*. Since you are tongue-tied, and so loath to speak,  
In dumb significants proclaim your thoughts :  
Let him that is a true-born gentleman,  
And stands upon the honour of his birth,  
If he suppose that I have pleaded truth,  
From off this brier pluck a white rose with me.

“ *Somerset*. Let him that is no coward, nor no flatterer,  
But dare maintain the party of the truth,  
Pluck a red rose from off this thorn with me.

“ *Warwick*. I love no colours ; and, without all colour  
Of base insinuating flattery,  
I pluck this white rose with Plantagenet.

“ *Suffolk*. I pluck this red rose with young Somerset ;  
And say withal, I think he held the right.”

Most fittingly the scene closes with the prophecy of Warwick—

“ This brawl to-day,  
Grown to this faction, in the Temple garden,  
Shall send, between the red rose and the white,  
A thousand souls to death and deadly night.”

One of the most penetrating and pathetic passages in the historical plays of our great poet occurs in the third part of “ *Henry VI.*” (act ii., sc. 4), where the king on the wasted field beholds first a son that has killed his father, and next a father that has killed his son, and exclaims in painful soliloquy over the dead boy—

“ Woe above woe ! grief more than common grief !  
O, that my death would stay these ruthful deeds !  
O, pity, pity, gentle Heaven, pity !  
The red rose and the white are on his face,  
The fatal colours of our striving houses :  
The one, his purple blood right well resembles ;  
The other, his pale cheeks, methinks, presenteth :  
Wither one rose, and let the other flourish ;  
If you contend, a thousand lives must wither.”

It is with a sense of immense relief that we see in the death of Richard III. the end of the sanguinary struggle, and most happily does that tremendous work close with the healing words of Henry VII., when upon Bosworth Field he declares—

“The day is ours, the bloody dog is dead!”

and crowns the victory with an act of clemency and an expression of pious hope—

“Proclaim a pardon to the soldiers fled,  
That in submission will return to us;  
And then, as we have ta'en the sacrament,  
We will unite the white rose and the red.  
Smile, Heaven, upon this fair conjunction,  
That long hath frown'd upon their enmity!  
What traitor hears me, and says not Amen?”

Returning to our flower, it will be observed that we have wandered far away from it, for the Wars of the Roses were represented by a white rose for Lancaster and a red rose for York. And what may they have been? In Shakespeare's time there were probably many kinds of roses in the Temple Gardens, but it was not so in the days of the Plantagenets. Then, in all probability, the only roses known in gardens were the wild roses of the woods. Supposing the scene which Shakespeare has so filled with the reality of life to be, not a creation of his own, but a scrap of genuine history, then we can find no other roses for the partisans than those described by Chaucer as—

“The bramble flour that bereth the red hepe;”

that is, the dog rose, the “canker of the hedge,” which gives in one thicket flowers of the most delicate rosy-pink hue, and in another flowers of the purest white. They



had also the sweet-brier rose, with its elegant carmine-coloured flowers, and the downy rose, with its neat white flowers; the emblems of the pending strife were not wanting, but no one can now say what they were.

As remarked above, there are two roses that represent the desire of Richmond to “unite the white rose and the red.” The true York and Lancaster we believe to be a striped damask rose; but there is another that often bears the name, the proper name of which is *Rosa mundi*, and its alliance is with the French rose (*Rosa Gallica*). These are not the only striped roses known to cultivators, for in truth there are many; but not one of the throng has ever been much prized by critical enthusiasts—that is to say, by rosarians, for that is the fashionable designation of the modern rosomaniacs—to which excitable and exacting fraternity the writer humbly confesses his attachment.







COMMON MARIGOLD.





## THE COMMON MARIGOLD.

*Calendula officinalis.*

FROM the common marigold here faithfully figured, and suggestive of soup, to the delicate French marigold, *Tagetes patula*, that the florists grow for exhibition, and bring to a perfection of geometric marking that makes a place in floriculture for mathematics, what a stride! Fifty years ago a flower show of a very individual nature engrossed my attention and made a very deep impression on my mind. It consisted entirely of common marigolds, and the scene was the churchyard of St. Botolph, Aldgate, where these flowers had run wild, and, as wild things are wont to do, had taken care to keep the race going, so that there should be no lack of

wild marigolds from year to year, for in truth the ground was literally covered with them as with a pavement of stars stamped out of the rinds of oranges. At that early date I had heard, but had never tasted, of soup flavoured or adorned—I knew not which—with

marigolds, and I stole and munched a flower, and was lost in the admiration of contempt for the people who could put such trash into soup, whether for flavouring, beautifying, or any other purpose. My father, being a florist to the backbone, would not tolerate a common marigold, and so I had to play the thief to gain the knowledge of the comparative worthlessness of marigolds in clear ox-tail. Within a few weeks of writing this I have had to judge at a flower show where the study of French marigolds occupied me nearly an hour to award the prizes to my satisfaction. What a stride! But Providence gave me years to accomplish it, with enjoyment at the beginning and the end and at all the intermediate stages. To stride over marigolds, beginning with soup and ending with the fine arts, is not a particularly noble business, but one might do worse; one might be M.P. for Battle Bridge, for example, or confessor to the pirates of the *Flowery Land*. When the churchyard marigolds enraptured me I had not read Shakespeare, but I call to mind now his association of them with the grave in the fourth act of "Pericles"—

*Enter MARINA, with a basket of flowers.*

"No, I will rob Tellus of her weed,  
To strew thy green with flowers: the yellows, blues,  
The purple violets, and marigolds,  
Shall as a carpet hang upon thy grave,  
While summer-days do last. Ay me! poor maid,  
Born in a tempest, when my mother died,  
This world to me is like a lasting storm,  
Whirring me from my friends."

The marigold is a very important flower to the sentimental. "As the marigold to the sun's eye," so is anything you like to speak of for its constancy. The marigold

is a "sunflower," and, in common with the helianthus; is said never to turn its face from that part of the heavens where the sun is, whether seen or invisible. In the "Winter's Tale," Shakespeare speaks of "the marigold that goes to bed with the sun and with him rises weeping," a state of things that necessitates the facing of the flower to the northern regions of the heavens all through the night. One of the most beautiful of the poetical fancies, founded on the idea of a flower following the sun, is the little poem by George Wither:—

" When, with a serious musing, I behold  
 The gratefull and obsequious marigold,  
 How duely, ev'ry morning, she displayes  
 Her open brest, when Titan spreads his rayes;  
 How she observes him in his daily walke,  
 Still bending towards him her tender stalke;  
 How when he downe declines, she droopes and mournes,  
 Bedew'd (as 't were) with teares, till he returnes;  
 And how she vailes her flow'rs, when he is gone,  
 As if she scornèd to be lookèd on  
 By an inferiour eye; or, did contemne  
 To wayt upon a meaner light, then him.  
 When this I meditate, me-thinkes, the flowers  
 Have spirits, farre more generous then ours;  
 And give us fair examples, to despise  
 The servile fawnings, and idolatries,  
 Wherewith we court these earthly things below,  
 Which merit not the service we bestow."

Florists' marigolds are very delicate things. The Africans we will not speak of, because anybody can grow them, and they are horribly coarse; but the French are delicate things, and worthy of all reasonable care to ensure fine quality. And yet with these the chief matter is to get good seed, for the qualities the severe judges of flowers



require are more the result of hybridism and selection than what we understand by the term "cultivation." But having secured the seed, sow it in a gentle hot-bed in April, or in pots some time in May, in which case a hot-bed will not be wanted, as the seed will soon germinate in a common frame. Prick out the young plants into boxes, filled with light rich earth, as soon as they are large enough to handle; and very soon after, the plants being stout and healthy, put them out in a bed open to the full sun, and carefully water and shade until they begin to grow freely, and then give no more shade and no more water unless the summer happens to be very hot and dry, in which case you must water regularly and copiously—say, to soak the bed well twice or thrice a week.







JESSAMINE

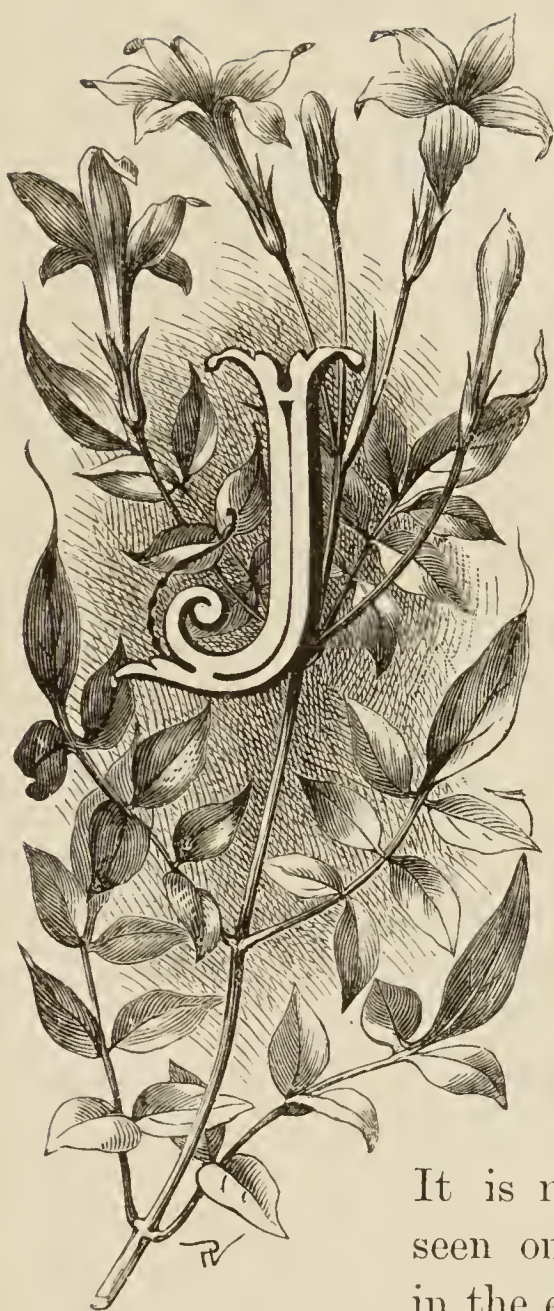


## THE JESSAMINE.

*Jasminum officinale.*

ASMIN THE TROUBADOUR,  
who happily hails from Agen,  
“content and poor,” makes  
boast of his name as allied to  
the “stem of Jesse.” For this  
plant is variously called Jas-  
mine, Jessamine, and Jesse :  
its Arabic name being *Ysmyn*,  
and its Persian name *Jâsemin*.  
And it is a question of some  
interest whether, in the pro-  
phetic utterances, “the stem,”  
“the root,” “the rod,” and  
“the branch” of Jesse were  
associated with any plant that  
had the value of a symbol.

It is not an idle question, as may be  
seen on reference to the tree of Jesse  
in the east window at Dorchester, Oxon ;  
for however the artist may draw on his  
imagination in such a work, he is likely to be governed  
by an idea derived from a consideration of facts, and  
the jessamine, if admissible in such a case, is peculiarly



adapted for truthful delineation in conventional tracery. The tree of Jesse is indeed often met with in the reredos and east windows of English churches, and usually we have no hint of any special symbol or any properly objective thought in the work, although, doubtless, there is fair excuse for it.

The white jessamine has been in cultivation in this country so long that we have no record of its introduction, and know not whence it was obtained. In the books it is reported to have been introduced from the East Indies in the year 1548, but Gerarde, in 1597, speaks of it as commonly used for covering arbours; and as to its native country, we can scarcely localise it, except in a general way, as an Eastern plant. It is perfectly hardy in this country, rarely suffering even in the severest winters, and it is particularly well adapted for planting in town gardens, as defect of light and the deposition of dust on its leaves do not prevent its healthy growth and free flowering. As a wall tree, however, it lacks character, and often looks dingy and dejected; but if fairly well taken care of, the natural elegance of the plant is pleasingly displayed, and the delicious fragrance of its delicate white flowers abundantly justifies its place in the garden.

To obtain the evanescent odour of the flowers of this plant, a complicated process is required. To merely press them or to distil them with water would be useless, the essential essence being too subtle for retention by any such simple methods of procedure. The flowers are first embedded in fat, to which they communicate their odorous treasure, which is then separated from the fat, and obtained in a more elegant form by means of alcohol. The last part of the process is comparatively modern, but the first pro-



cess is as old as the use of perfumes, and explains the frequent employment of ointments by the ancients; for many of the odorous essences they coveted were obtainable only by the aid of greasy substances, which served as vehicles for separating and preserving them.

The most important species of *Jasminum* in respect of the production of commercial perfumes are *J. officinale*, which is here figured; *J. sambac*, a native of the East Indies, producing white flowers, which are followed by black berries. —the perfume known as oil of jasmine is obtained from this species; and *J. grandiflorum*, also a native of the East Indies, and closely resembling *J. officinale*, but the flowers are larger, and reddish underneath; from this is obtained a very considerable proportion of the essential oil of jasmine of the shops. A favourite garden jasmine in the East is *J. angustifolium*, a bright twining plant, with star-shaped flowers tinged with red, and very agreeably fragrant. It is somewhat singular that when these plants are grown in our conservatories they do not appear to attract many insects, nor does the fragrant jessamine of the garden often enjoy the honour of a visit from a busy bee or an idle butterfly; but Moore, with his exquisite taste in matters of detail, makes the jasmine of Asia Minor the resort of many gay insects, attracted by the rare fragrance of its flowers. In his delightful story of “Paradise and the Peri,” he makes the “child of air,” when searching for “the gift that is most dear to heaven,” betake her amongst the bowers of the “chambers of the sun”—

“When, o’er the Vale of Balbec winging  
Slowly, she sees a child at play,  
Among the rosy wild flow’rs singing,  
As rosy and as wild as they;



Chasing, with eager hands and eyes,  
The beautiful blue damsel-flies,  
That flutter'd round the jasmine stems  
Like winged flow'rs or flying gems."

Cowper, who better understood the garden than any English poet, Shakespeare alone excepted, gives us a photograph of the plant in four short lines—

"The jasmine, throwing wide her elegant sweets,  
The deep dark green of whose unvarnish'd leaf  
Makes more conspicuous and illumines more  
The bright profusion of her scatter'd stars."

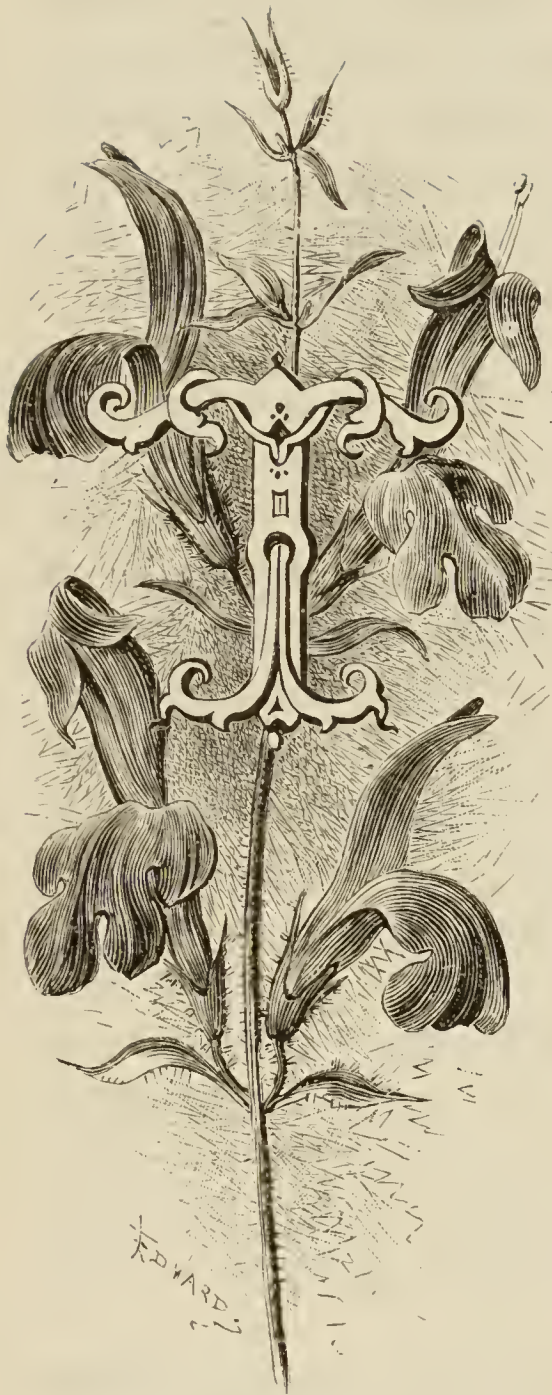






BLUE SAGE.





## THE BLUE SAGE.

*Salvia patens.*

THE light of other days is faded, and the blue salvia is no longer in high renown as a wonder amongst bedding plants. It has filled as many pages of print as the crimson flax, but now the horticultural writers have nothing to say about it, and appear, indeed, to have forgotten its gay existence. It might have been famous to this day if it could but have stooped to conquer, but it was always too tall for its place, and carried its colours carelessly, as if seeking the bubble reputation were a pastime for such meaner ones as without

seeking would never outwin reputation at all. But we must be wise about it, and endeavour to earn our wages.

The blue salvia is a tall-growing, loosely-branched, untidy plant that may be grown equally well in the greenhouse or the stove. For summer bloom the greenhouse suffices, and during the warmer portions of the summer

the plant will, if properly managed, flower freely in the open air. If winter flowers are required, the plant must be in the stove, where, if fairly dealt with, it will rise to a height of ten or twelve feet, and make a very delightful display of its intensely blue flowers, in which the blue of the delphinium—the rarest colour in nature, save in the vast firmament above—is developed in power and purity.

*Salvia patens* may be raised from seed with ease and certainty. If it is sown in sandy soil in shallow pans and boxes early in February, and placed in the stove or on a common hotbed, the plants may be grown to a sufficient size to make a good display in the flower garden the same season. It will be necessary to pot them into small pots, and keep them in a warm pit or greenhouse until the middle of May, when they should be transferred to a cold frame, and have more and more air by degrees, but with very great care in the first instance, the object of this treatment being to render them hardy enough to bear full exposure before they are finally planted out. The bed should be in a sunny situation, well drained, and the soil somewhat sandy. To plant them out before the first week of June would be unwise, but as soon after that time as possible they should be consigned to their blooming quarters, and should be at a distance apart of not less than nine to twelve inches.

The plants can be kept from year to year by lifting the roots after the tops have been cut down by frost, and storing them in sand during the winter. Early in the spring these roots should be planted in boxes or pans filled with light soil, and be placed in a moderate heat to start them into growth. They will soon produce young shoots, which, when two or three inches in length, may be taken



off as cuttings, and will soon strike in a temperature of 70°. This practice may be varied by lifting and potting the plants before the frost has defaced them, in which case they must be wintered in a warm greenhouse or the cool end of the stove, and have but moderate supplies of water until they begin to grow freely in the spring. At the time of potting, superfluous shoots may be removed and struck, but the autumn is an inconvenient season for propagating this salvia.

The crimson salvia (*S. splendens*) and the small *S. coccinea* are about equally well adapted for bedding as *S. patens*, but they are all so diffuse in habit that to employ them to advantage requires more than ordinary taste and judgment. *S. coccinea* answers admirably to grow from seed as an annual, as when so managed it does not grow much more than a foot high, and it blooms freely from July to October.

For the greenhouse and conservatory the following species of salvia may be especially recommended:—The narrow-leaved (*S. angustifolia*), flowers blue, appearing in May; the light blue (*S. azurea*), flowering from August to October; the scarlet (*S. fulgens*), a fine plant, producing a grand show of scarlet flowers in August; the white patens (*S. patens alba*), a variety of the plant represented in the plate. It is useful as a greenhouse plant, but is scarcely effective as a bedder.

A remarkably fine group of salvias were some time ago brought into notice by Mr. H. Cannell, of Swanley. We happily received grand spikes of bloom of three of these, and therefore can speak of them as flowering well in the autumn. *Salvia Pitcheri* produces a profusion of flowers of the most pure and brilliant blue, and will flower



all the winter in the conservatory. *S. Betheli* has brilliant scarlet flowers; *S. splendens Bruanti* also has scarlet flowers; *S. Hoveyi* has flowers of an exquisite tone of violet or satiny purple. These four may be considered the most useful of all the salvias in cultivation.

A few other kinds deserve mention. *S. tricolor* is a sweet little gem, with white tube and mouth, and the upper lip purple, the lower lip scarlet—a bit of Nature's fancy work in painting that appears intended to mock the human painters of flowers. Thirty years ago we used to see in the gardens two curious salvias, named respectively *S. bracteata* and *S. horminum*, which are remarkable because their conspicuous features are their coloured bracts, the flowers of both being blue.

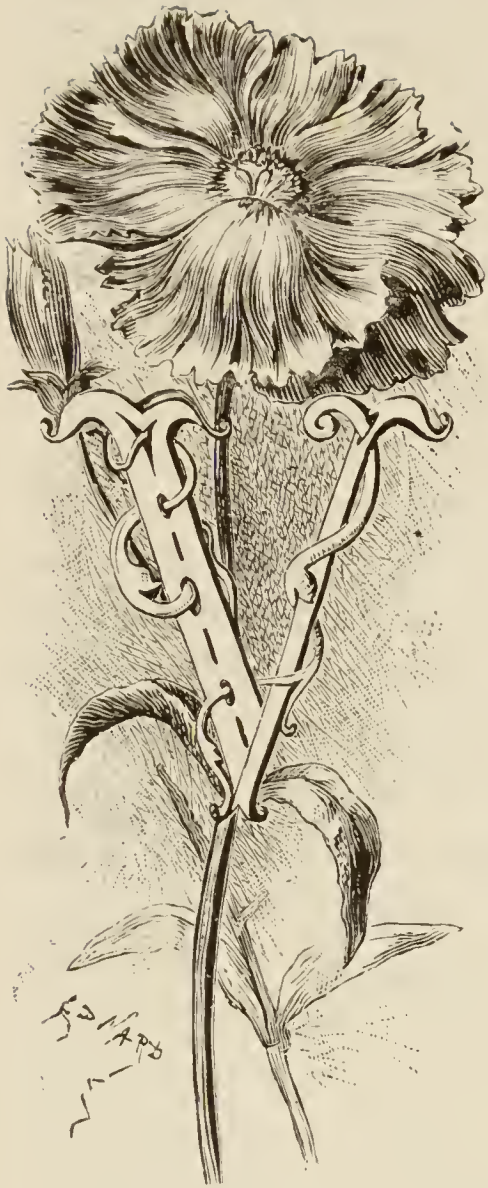






INDIAN PINK.





## THE INDIAN PINK.

*Dianthus Chinensis.*

ARIABILITY is a common characteristic of garden flowers, and is the quality on which depends very much of the interest they excite in the mind of the florist. A flower that continues constant to its typical character, or but rarely manifests a capability of varying, will never attain to high popularity, no matter how splendid may be its appearance when in full dress. The Indian pink possesses the charming property of changeableness in an especial degree, and the consequence is

that our gardens abound with distinct and rich varieties that in some instances are so far removed from the type that the relationship can only be determined by the trained eye of the critical botanist. The splendid forms known as *Dianthus Hedderwegi*, *D. giganteus*, and *D. laciniatus* are all sub-sections, or "strains," of *D. Chinensis*, and it is not unlikely that if they were at this moment destroyed, they could be reproduced from the species within the lifetime of an earnest florist who should

have the good fortune to begin early and be spared to labour late in developing the variability of this gay and useful plant. In its simple, and for present purposes we may say original state, as the common Indian pink, it is surely the cheapest and most beautiful of all our hardy annuals; but in its improved condition it ranks as a florist's flower, and we name the finest examples and regard them as perennials because they are propagated from cuttings. In the books the Indian pink is a biennial, being so classed because it is usually sown in summer to flower the next summer, and having flowered, dies. But it has been our rule to sow the seed early in a frame, and put the plants out in a bed of light rich soil in the month of May, and have them gloriously in flower from July to the end of the season: thus it becomes an annual. But it does not of necessity die after the first season's flowering, for on a dry soil it will live many years, if the dead flowers are removed, so as to prevent the swelling of seed-pods: thus it becomes a perennial. A majority of so-called "biennials" may be treated as annuals or perennials at the discretion of the cultivator. Of all the common plants, the life-term of which may be thus contracted or prolonged at pleasure, the most interesting, perhaps, is the mignonette. As usually treated it is an annual; but we have had immense mignonette trees that have lived fifteen years, and become quite woody and venerable, the one secret of keeping them so long being the systematic prevention of seeding. Allow them to swell a fair crop of seeds, and away they go. Do not allow a single seed-pod to swell, and in all probability a mignonette plant would live as long as its owner, and then become an "heirloom," or more likely a "white elephant," to another possessor.

The Indian pink was introduced about 1713 by a French missionary named Bignon, and soon became a popular garden flower. The plant has a singularly frail appearance, and yet it is by no means tender in constitution. The narrow glaucous leaves, too, seem out of proportion to its large and richly-coloured flowers, a quality which may be termed "alpine," for the plants of the mountains commonly produce flowers of immense size in proportion to the herbage that sustains them. Any ordinary good soil will suit this plant, but excessive damp in winter is to be carefully avoided by the cultivator, and therefore, when grown on a heavy soil, the stock should either be wintered in pots and boxes in a frame, or in a bed in a pit, or, if in the open, a raised bed should be prepared for them consisting of good loam with a considerable proportion of sand. From this they may be transplanted in April to the beds or borders in which they are to flower. But this is beginning at the wrong end, because it presupposes the possession of plants. The very best way to obtain a stock is to sow seed in an open border or cold frame in May or June. If the plants are required to flower as early as possible the same season, sow in February or March in pots or pans, and place on a hotbed or in a warm house, and as soon as the seedlings have made a little progress, prick them out into boxes and nurse them with care, and plant out early in May.

It is singular that the word "pink" is so various in its meaning, that it may be cited as one of the wonders of philology. We talk of the "pink of perfection;" and a flower does not cease to be a pink though its colour may be white, purple, or even yellow. Whitsunday is a "pink day," but the term Pentecost does not mean either a



White Sunday or a Pink Sunday, but simply the “fiftieth.” From “Pentecost,” however, we have not only the name of a festival of the Church, but the name of a flower and of a colour, and of a process that has melancholy suggestions—that of “pinkings.” By a roundabout but not uncertain process, a pink becomes an eye, and also anything that glitters. The French term for the flower is *œillet*, an eye, or eyelet, and it is in accordance with the most common mutations of words to find that *pink* is a merely sharpened form of the older word *bink*, and this again a departure from *wink*, and, following this up, we attain to the Anglo-Saxon *wincian*, or, as we have it in common parlance, winking, a movement of the lids of the eyes. A pilot’s boat is sometimes called a “pink,” and the scar resulting from a wound is also called by the same name. Thus, in Cowper’s expostulation, “pink’d” means marked with stabs—

“He found thee savage, and he left thee tame;  
Taught thee to clothe thy pink’d and painted hide,  
And grace thy figure with a soldier’s pride.”





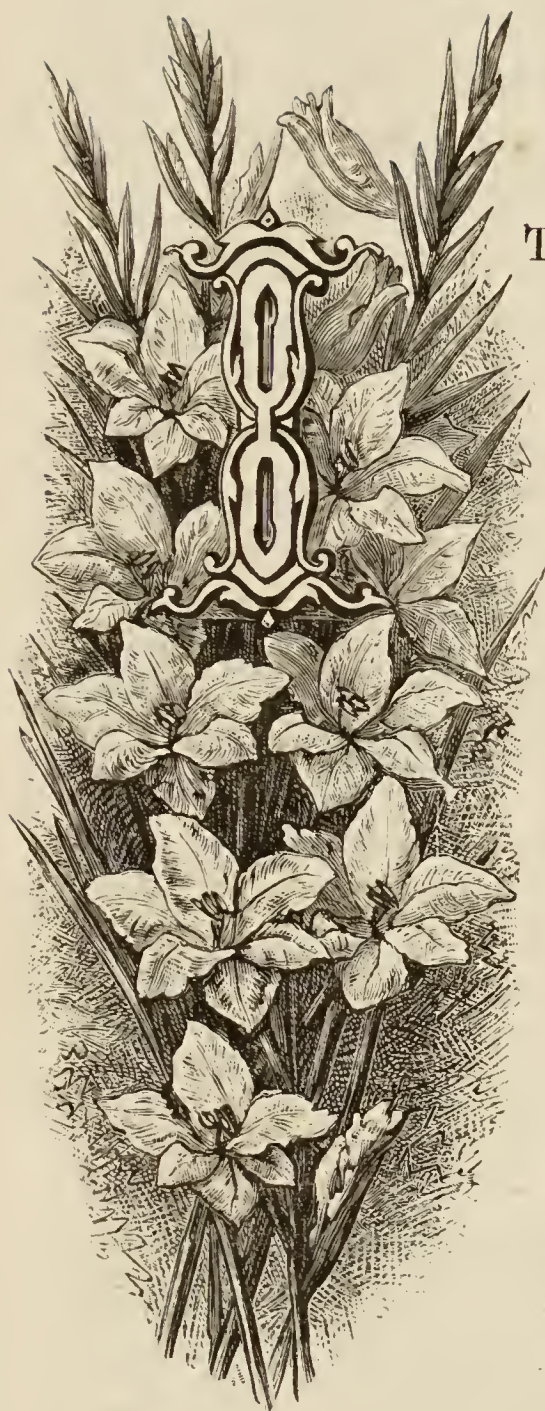


GLADIOLUS.



## THE GLADIOLUS.

*Gladiolus gandavensis.*



It is a mere compliance with custom to label this flower *Gladiolus gandavensis*, for that is the name of an early hybrid between *G. cardinalis* and *G. psittacinus*, raised many years ago in a Belgian garden. But it is scarcely worth while to discuss technicalities or draw fine lines, and we prefer to talk about the gladiolus as a beauty to be wooed in the pleasant days of the after-summer.

The florist's varieties constitute a large and separate class, and are usually designated "hybrids of *gandavensis*," although they owe their origin to several species and to many and repeated crossings. To grow these well requires some care; but they are

worthy of all attention, so various and splendid are their flowers. In the first place, then, it must be said that they are not hardy, and therefore it will not do to leave them in the ground all the winter. We have

tried this many times, and although many roots survived the ordeal, they were rendered worthless by it. Nor is it well to plant them in February or March, as advised in some of the books; for if the spring is wet and cold they rot in the ground, and if it is dry and warm they grow too soon, and their tender green tops are liable to be cut off by frost in April and May. Keep the corms or roots in sand, in a dry, cool place, until about the middle of March, and then pot them singly in thumb-pots, or in three-inch pots at the utmost. First cover the hole in the pot with a convex potsherd, hollow side downwards, or with two or three small pieces of coke or cinder. Then put in compost to the depth of about two inches; on this place the corm, and fill in, and press a little firm all round, and finally cover to within a quarter of an inch of the rim of the pot. The compost may, with advantage, consist of equal parts of mellow loam, leaf-mould, very old rotten hotbed soil, and silver-sand. But this precise formula need not be followed, because any light compost will answer the purpose, if sweet and nourishing. Pack the pots in a frame, or under the stage of a greenhouse, give them one watering, and leave them untouched for a fortnight at least. By that time, probably, the growth will be spearing through. In such case they must have light and air, and a very suitable place for them will be the stage of a cool greenhouse, or to continue in the frame, and to have regular attention in respect of watering and air-giving. Be careful to avoid extremes. Keen east winds, sharp frost, very much moisture, continued cold and damp, are all more or less to be feared as dangerous. It is but little they will require; the matter of main importance is to keep a watch on them.



You must now prepare for planting out. The bed should be in an open, sunny, though sheltered situation, and the soil should be deep and mellow, and rich in humus. A heavy, pasty, or lumpy soil will not do. Gladioli will grow finely in peat, and still more finely in a hazelly loam, continuing abundance of rotted turf, and a moderate amount of old hotbed soil. Many natural soils which may be described as sandy loam will grow them well without any aid whatever; but we have noticed that the most successful growers prepare the ground with care, and put in a pretty liberal dressing of well-rotted farm-yard manure.

The best time to plant out is just when the pots are full of roots, and will turn out without breaking. Then make your plantation, and if the weather be dry give water every evening for a week, after which discontinue watering for a week or so, unless the weather sets in unusually dry and hot, in which case the water-pot must be kept going. In a run of ten years, during which we flowered all the varieties, we managed to do well without often resorting to the water-pot. We had our plants nicely rooted in small pots, and put them out in showery weather, and did little more for them than to keep the ground clear of weeds and afford aid as required in staking and tying; and the bloom was always of good average quality, and sometimes more than that.

In respect of taking up the corms, it is very important to remark that you may incur serious loss by waiting until the leaves die down, for in a mild, moist autumn they will keep green until near Christmas; meanwhile, perhaps, the roots, being moist when they ought to be dry, become diseased, and this is manifested in the next season in



various unpleasant ways. Therefore, when there comes over the plantation a certain amount of yellowness, and the leaves look as if they would die if they could, and are only prevented by reason of the "growing weather," hesitate no longer, but lift them, and lay them in lots of a sort in a dry shed, with as much earth about them as adheres naturally, and in the course of a week afterwards clean them by removing leaves and roots, and store in sand.

It is a delightful task to raise gladioli from seeds. To obtain the seeds is an easy matter, but artificial fertilisation should be practised to render the work complete. Sow the seed in spring in shallow pans, which should be placed in a moderate heat. When the grass appears, give air cautiously; and when the season is sufficiently advanced, place them out of doors, and let them finish the first season's growth in the seed-pans. Put these away untouched in a dry place for the winter. In the month of March following sift the soil and separate the corms, and plant these in pans, and treat them as described above for the flowering corms. At the end of May plant them out.







VIRGINIAN STOCK.





## THE VIRGINIA STOCK.

*Malcomia maritima.*

O humble a flower is this that we should despair of making a sufficient vindication to justify the picture, but, happily, it is a representative of a very important class of garden flowers—the hardy annuals—with which most amateurs make an agreeable beginning in garden experiences. It is a cruciferous or cross-flowered plant, and in that respect might claim a lot of attention; for the wallflower, the stock, the aubrietia, the rocket, and the cabbage are cruciferous, and have some striking properties in common.

Hardy annuals are the cheapest flowers in the world; many of them are gay, and last long, and are delightfully fragrant, and all of them are interesting and pleasing more or less. It is usual to sow the seeds of these flowers in the month of March in patches along the borders, and the customary practice answers very well. The weak point in the practice, for the most part, consists in sowing too many

seeds and leaving too many plants in a clump, for, being crowded, they never acquire a proper degree of strength; and hence, if they flower freely, the flowers are small and are soon over. When walking round the kitchen garden, you will sometimes see a stray plant of parsley in the cabbage or onion plot, and it is sure to be robust and handsome, so that a punnet may be filled with its beautiful leaves, and still leave the plant looking pretty well. The reason this stray plant is so strong, while the parsley sown in the row next the walk is quite lean as compared with it, is that it has enjoyed plenty of air and light, as is the way of vagabonds; and hence their rude health and easy endurance of circumstances that would kill the pampered ones right away. Now and then a stray plant of Virginia stock may be seen in like manner, and then what a plant it is! We have met with single plants measuring six to nine inches across—a dense mass of healthy herbage, completely smothered with flowers half as large again as those produced on the thin, wiry plants where they are crowded in clumps on the regulation pattern. And yet this lesson, so obvious and so forcibly taught by nature, amateur gardeners are very slow to learn, and they will go on sowing Virginia stock and mignonette as if they would pave the ground with the seed; and, when the plants are up, will throw away the second chance of success by refusing to thin the plants, as they should, to from three to six inches apart.

Annuals are occasionally grown in first-rate style, and if well selected are, in the early part of the summer, remarkably effective. There is almost only one point of importance in the practice, and it consists in sowing the seeds *in the autumn*.



Let us now address ourselves to this subject. When annuals are sown in autumn, it should be on poor, dry ground. The object is to build up the plant slowly, as a mountaineer that is thinly fed becomes sturdy through constant exposure to all the airs of heaven more than by the aid of such nourishments as are strewn in the lap of luxury. The time of sowing must be regulated by the latitude and local circumstances: in the far north, the end of July is none too soon; in the midlands, the middle of August is soon enough; in the south, the sowing may be prudently delayed until September; and in the far south, where geraniums often live through the winter, October is soon enough. The object of sowing in autumn is to give the plant the longest possible time to accumulate the substance requisite to the production of flowers. But if we sow too early for the district, the plants may become stout and succulent before the winter frost occurs, and when the frost comes it may kill them. Hence the necessity of in some degree adapting the season of sowing to the averages of the local climate.

The safest mode of procedure is to sow in an open spot, on poor soil, and thin the plants to about two inches apart before they touch one another. In spring, when the weather is favourable, transplant them to the spots whereon they are required to flower, and do this as early as possible, that they may become well established before they begin to throw up their flowers. In a mild, open season the middle of February is none too soon for this work; but it should anywhere be completed before March is out.

In places much exposed, where there might be a risk of losing the stock in the winter, the seed may be sown on beds made up for the purpose in turf pits. In this case



they must have plenty of air to keep them short in stature and hardy in constitution.

The following are the most useful sorts of annuals for sowing in autumn:—*Calandrinia grandiflora*, rich purple, twelve inches in height; *C. speciosa*, purple, twelve inches; *Calliopsis bicolor*, golden yellow, three feet; *Clarkia elegans*, lilac, two feet; *C. pulchella*, rose-purple, eighteen inches; *Collinsia bicolor*, purple and white, twelve inches; *C. multicolor*, crimson and white, twelve inches; *C. verna*, blue shaded, twelve inches; *Erysimum Peroffskianum*, orange-yellow, exceedingly showy, eighteen inches; *Eschscholtzia crocea*, orange, twelve inches; *Gilia tricolor*, white and purple, twelve inches; *Godetia Lady Albemarle*, brilliant crimson; *G. rubicunda splendens*, purple, eighteen inches; *Iberis umbellata*, in variety, ten inches; *Nemophila insignis*, blue, six inches; *Platystemon californicum*, sulphur-yellow, six inches; *Saponaria calabrica*, deep rose-pink, twelve inches; *Silene pendula*, pink, fifteen inches; *Viscaria oculata*, rose-purple, eighteen inches.







LOBELIA.





## BLUE LOBELIA.

*Lobelia erinus.*

PLANT so well known as the little blue lobelia may appear capable of telling its own story, but it is not so; and there is so much in the story that we must be business-like, and avoid sentiment and gossiping. It represents a pretty group of dwarf-growing, wiry-habited, free-flowering plants, the flowers of which are mostly of some shade of blue, but occasionally white, rosy purple, and pucey pink. They are all annuals or perennials, according to the treatment they receive and the kind of season they have passed through. In a hot dry summer they produce an abundance of seed, and become exhausted. In this case the old plants are likely to die during the winter, however much care may be taken of them. After a wet cool summer the old plants are likely to survive the winter, if potted and housed sufficiently early in the autumn.

In the cultivation of these dwarf lobelias, the saving

of old plants is resorted to only for the purpose of supplying cuttings in spring, annual renewals of the plants being absolutely needful if a free growth and an abundant bloom be desired. A quick way of making stock is to tear the plants to pieces in the autumn, and pot the little rooted tufts in sandy soil and store them away in a greenhouse or pit. The section known as "pumila," consisting of very dwarf cushion-like plants, may be very well propagated by this method, but the more wiry ones, such as *ramosa* and *elegans*, are best grown from cuttings. They may all be most easily grown from seeds sown in pans in February or March, and afterwards pricked out to become strong in time for bedding, or the seed may be sown in April where the plants are to remain to flower, and if thinned in good time the plants will do very well, although, of course, they will flower somewhat late.

All the lobelias, including the grand "*cardinalis*" section, require a deep, rich, moist soil, and therefore, if the soil of the garden is dry and poor, plenty of leaf-mould, rotten turf, and old hotbed manure should be dug in where the lobelias are to be planted. None of them are quite hardy, but none of them are particularly tender, therefore moderate protection in a cool house or pit will in general suffice for their preservation during winter, but long-continued frosts will certainly prove fatal to them. As they are a thirsty lot, an overdose of water at any time will scarcely trouble them; and if, amongst the arrangements for bedding plants, any house or pit proves too damp for geraniums, it will probably happen that lobelias may be wintered there with perfect safety.

The genus was named by Linnæus in honour of a remarkable man, who was one of the true founders of botanical science. Matthias de Lobel was born at Lisle in 1538, and was trained to the medical profession, under the physician Rondelet, in whose honour the fragrant *rondeletia* was named. Lobel, according to the good custom of his time, prepared himself for the business of life by travel, and in his wanderings he picked up a lot of knowledge about plants. He settled as a physician at Antwerp, but soon after went to Delft, where he was appointed physician to William Prince of Orange. Some time after this, but at what date no one can tell, he came to England, and published in London, in 1570, his "*Novum Stirpium Adversaria*," the object of which was to investigate the botany and materia medica of the ancients. Now it is of the utmost importance, in connection with the history of plants, to bear in mind that this work contains the germ, and a large and good germ, of the natural system. Lobel grouped the plants into tribes and families by their affinities, which is the essence of the natural system; and it is somewhat surprising that Linnæus did not work on this basis instead of framing his own artificial system, which, with all its ingenuity, is comparatively valueless even as an aid to the memory, although it becomes useful in spite of its inherent weakness of principle when it happens to agree with the natural system in the case of such groups as the grasses and the composites.

Lobel was an industrious author and a consistent worker in the garden. Under the patronage of Lord Zouch he established a physic garden at Hackney, and in due time was appointed king's botanist by James I., but



probably without a salary, and with but few official duties. In 1576 he published his "Observationes," wherein may be found the sources of much of the information embodied in Parkinson's "Theatrum Botanicum" and other works of the time that now surprise us by their erudition, their comprehensiveness, and the delightful accuracy of their engravings.

The lobelias are widely scattered, but there are not many of them. There are two British species, namely, *L. urens*, a very rare plant, found on heaths near Axminster, and *L. Dortmanna*, a rather showy water-plant with blue flowers. The "erinus" section are natives of the Cape of Good Hope, and comprise *L. bicolor* and *L. campanulata*, from which many of the garden varieties have been bred. The splendid plants of the "herbaceous" section, comprising *L. cardinalis*, *L. splendens*, and *L. fulgens*, are natives of Mexico.







COMMELINA.





## THE COMMELINA.

*Commelina caelestis.*

LIKES and dislikes, as regards flowers and plants, are not very easy to explain, and we shall not now attempt to say why it is that many people dislike the Commelina and the Tradescantia and the rest of the "spiderworts." However, it may not be improper to remark that in proportion as taste is influenced by knowledge it becomes universal. Large-minded and generous-hearted people discover beauties and points of peculiar interest in all the works of nature, and we may reasonably expect to find the wise ones of this generation unencumbered with prejudices in their observation of the wonders that spring up around them.

The Commelina takes its name from the Dutch botanists, J. and G. Commelin, whom it thus keeps in remembrance, just as its near ally, the Tradescantia, is named after John Tradescant, gardener to Charles I., a man who contributed in an eminent degree to advance the botany

and horticulture of his day, which were not altogether favourable to science. The genus has a wide geographical range, but a majority of the species are American. The plant figured is the best known of all, and is certainly a very charming subject for pot or border culture. Although a perennial, it may be grown as an annual by sowing the seeds in heat and nursing the plants under glass until May, when they should be carefully hardened by gradual exposure to the free air, and be planted out towards the end of the month. The tuberous roots may be preserved in the same way as dahlia roots, but should never be quite dry; the best way to keep them is to take them up early in October, and, having removed the stems, pack them in moist sand in a large flower-pot, and put this under the greenhouse stage where no damp will reach it, for if the roots get wet in winter they will rot. As it is such an easy matter to raise a stock from seed, there is no great inducement to keep the roots. Nevertheless, they are useful to the cultivator who cannot conveniently raise early seedlings, because he may sow the seed in the open border at the end of May and take up good roots in October, and by keeping these make sure of a good bloom in the season following. If the tubers are planted at the end of May they will begin to grow immediately and make fine plants; but a better way is to start them into growth in pots in a frame or greenhouse first, and defer planting until the early part of June. Supposing there is no need to save the roots, they may still be turned to account; when boiled in salt and water and served with white sauce they constitute an agreeable table vegetable, and thus the flower garden may in this respect be made subservient to the dinner table.



All the species of *Commelina* require a light, rich soil and a sunny situation, but they will bear a certain amount of shade. There are a few hardy species with blue flowers, the best of which are *C. erecta*, *C. fasciculata*, and *C. Virginica*; but these are only known in botanic gardens, and the amateur will in most cases have to content himself with the charming blue-flowered plant which is the subject of the accompanying figure, and its two beautiful varieties. One of these (*Commelina caelestis alba*) has white flowers, and the other (*C. caelestis variegata*) has variegated leaves.

The Virginian spiderwort (*Tradescantia Virginica*) is a capital border plant, for it will grow in almost any soil, and gives plenty of flowers all the summer through. We have had it thriving amazingly in a wet clay, the varieties being at least a dozen in number, and we have seen it scarcely less happy in old worn-out garden loam or sandy peat. The deep violet blue, which is considered the typical form, is extremely beautiful in the contrast of its golden anthers with the violet satin of its petals. The white variety also is extremely beautiful. Those who want more than these two will have no difficulty in obtaining the blue and white, the double blue, the single red, and the single blue. They have but to be planted and left alone, and they will do their duty. They are not out of place on a rockery, but are not good enough for a really choice rockery, for, though curious and beautiful, there is a weedy and common tone about them, and a rockery must be extensive to admit such things. Propagation is best effected by division in spring, and those who are unaccustomed to propagate plants may be advised to avoid minute division, being content to divide a clump into two or three good-sized pieces rather than make of it as many as possible.



The best figure of the plant that we have met with in any botanical work is in Sweet's "British Flower Garden" (t. 3). It is also figured in the *Botanical Magazine* (t. 1659) as *C. tuberosa*, which Sweet regards as a mistake; for, he says, this has "smooth leaves and hairy peduncles, whereas *C. tuberosa* has hairy leaves and smooth peduncles." The very broad views that now prevail in respect of the characters of species would sanction the opinion that these two "species" are but two forms of the same plant; but we must not encumber these pages with the heavy arguments that might be needful to establish exact identity. Certain it is that "species" are now more boldly separated than in the days of Sweet and Herbert and Haworth. After all, more depends perhaps on words than ideas—that is, in respect of these verbal distinctions. What one regards as a species, another may regard as a mere variety, and the difference of terminology will not matter much in the end, provided all behold the truth as nature presents it to our notice.

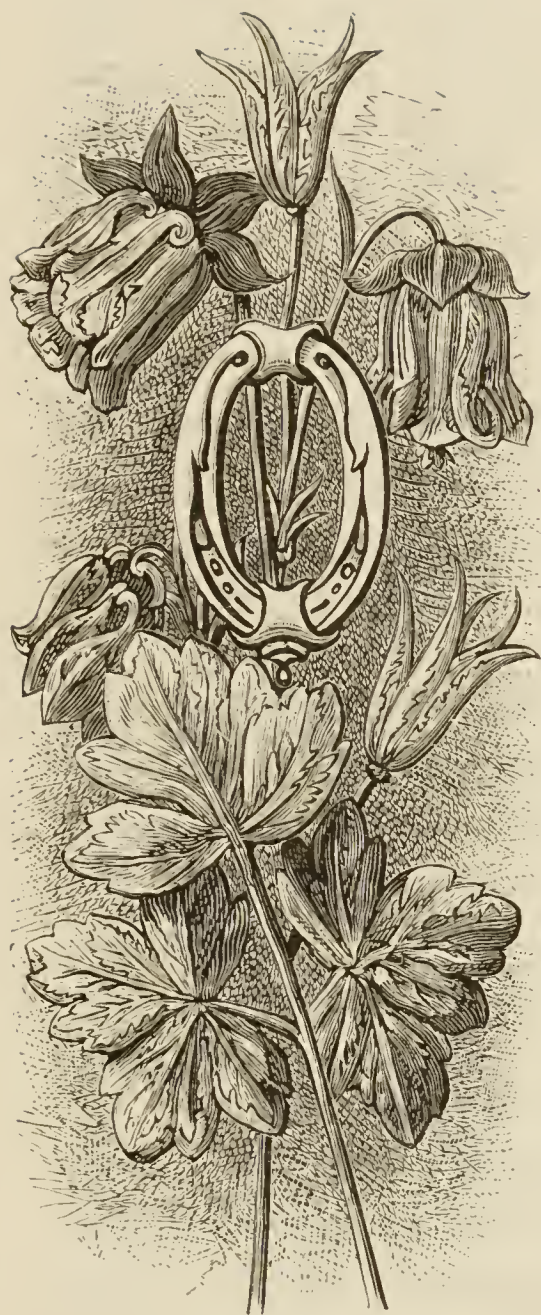






COLUMBINE.





## THE COLUMBINE.

*Aquilegia vulgaris*

ONCE more we have to discourse upon an "old-fashioned" garden flower that everybody knows and loves, and yet very few make it the subject of any special care in cultivation. It is astonishing how well it can take care of itself, as indeed do all the aquilegias, for they scatter their seeds freely and appear in all sorts of places, and it requires a rough hand and hard heart to root them out and call them "weeds." According to the derivation of the word from the Latin *columbina*, a columbine should bear a likeness in some way or other to a dove or pigeon.

If there be any resemblance, however, it is of a round-about sort. The nectaries are rather peculiar, and may be likened to the heads of pigeons. The Latin name *aquilegia* means "like an eagle," and so in both languages the flower suggests the existence of a bird.

The common columbine is a British plant, by no

means common, though in a few places plentiful, its favourite haunts being woods and coppices. When grown in the garden border it scatters its seeds plentifully, and thus renews itself without any care. But fine flowers are not often obtained from the plants thus naturalised in the garden. There must be careful selection and good cultivation to insure the establishment of a good strain, and none but the best should ever be allowed to remain after the first flowers have been seen. The double kinds are certainly handsomer than the single, and as they do not produce seed, or at all events but little, they must be multiplied by division. Any good soil will suit them, and they bear partial shade without injury.

The economy of the reproduction of this flower is deserving of study. The nectaries, that may be likened to the heads of birds, secrete a syrup that appears to be needed to promote the growth of the stamens. These are produced in a series of circles which have been perfected successively from within outwards, each series changing from a recurved to an erect attitude to discharge its pollen, the result being a very abundant production of seed.

The hardy species of columbines that may be met with in gardens where choice plants are cherished have no place in the catalogue of "familiar" flowers. They are, however, extremely beautiful and intensely interesting. The most useful of all is the noble blue and white *Aquilegia glandulosa*, which rises to a foot in height, and produces a profusion of flowers. *Aquilegia cærulea* is the most beautiful of all, though it is certainly not showy; its large and singular flowers—blue and white, and tipped with green, and as it were twisted



together—are rare and delicate, but make no appeal to the casual eye. The showiest of the series are *Aquilegia Skinneri*, a bold plant, rising a yard high, with red and yellow flowers; and *Aquilegia truncata*, about the same height, the flowers bright orange-scarlet. The Alpine columbine (*A. Alpina*) is a charming plant, the height about a foot, the flowers wholly blue, or with white centre. Although some of these are comparatively new, they belong properly to the “old-fashioned” class, and are of the kind Clare had in his mind when he wove a garland such as the heart will not willingly let die.

“The shining pansy, trimmed with golden lace;  
 The tall topped lark-heels, feathered thick with flowers;  
 The woodbine, climbing o’er the door in bowers;  
 The London tufts of many a mottled hue;  
 The pale pink pea, and monkshood darkly blue;  
 The white and purple gillyflowers, that stay  
 Lingering in blossom summer half away;  
 The single blood walls, of a luscious smell,  
 Old-fashioned flowers which housewives love so well;  
 The columbines, stone blue, or deep night brown,  
 Their honey-comb like blossoms hanging down;  
 Each cottage garden’s fond adopted child,  
 Though heaths still claim them, where they yet grow wild;  
 With marjoram knots, sweet brier, and ribbon grass,  
 And lavender, the choice of every lass.”

During the past two or three years a new and very welcome delight has been given to the flower-loving public in the exhibition of new varieties of columbines, by those eminent collectors and cultivators of rare plants, Messrs. Veitch and Son of Chelsea. At festival meetings of the Royal Horticultural and Royal Botanic Societies these new types have been presented in large groups, tastefully arranged, and have taken captive the eyes of many visitors, who



have found it hard to believe that such exquisitely beautiful subjects might be grown to perfection in any open garden with the aid of sunshine and fresh air. It is customary for the first agreeable impression of a new plant or flower to be accompanied by the thought that it must be of exotic production, requiring hothouse cultivation, and so of course these new aquilegias were regarded as rare and tender, whereas they may be grown by the thousand and the ten thousand from seed costing but a small sum, and what is called a "common garden border" will suffice for all their needs. The raiser of these charming varieties was Mr. James Douglas.

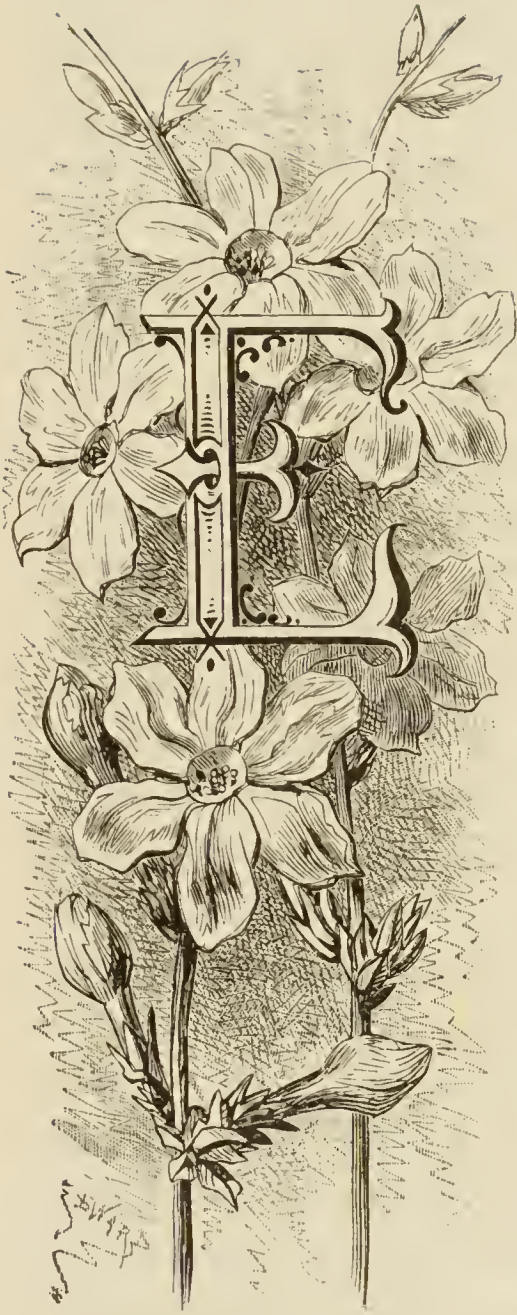






WINTER JASMINE.





## THE WINTER JASMINE.

*Jasminum nudiflorum.*

VERY known jasmine is worth growing if space can be found for it and taste inclines to it. We cannot expect everybody to grow everything, and therefore we deprecate the earnestness of those writers in horticultural papers who devote their fine energies to the abuse of people who grow what suits themselves in defiance of the dictates of their egotistical critics. The jasmine now under consideration is not adapted for any great variety of uses, but it is a pretty thing to grow on a wall near doors and windows, because in the dark days of winter it will be all alive and

full of golden light with its generous display of yellow flowers. As these appear when the plant is as yet without a leaf, it is called the naked flowering jasmine (*Jasminum nudiflorum*).

This jasmine was introduced from China by the late Mr. Robert Fortune, as one of the results of his memorable

and successful expedition on behalf of the Royal Horticultural Society, in the years 1843 to 1846. It is a hardy deciduous shrub—so hardy, that although we have had some half-dozen terrible winters since it became established in the country, we have never heard of an instance of its being destroyed or even seriously injured by severe frost. Accustomed as we are to “floral surprises”—which do not cease to “surprise” even when one gets used to them—we think we were never more surprised than in the month of March, 1880, when on the first look round after about three months of the most destructive and horrible frost and fog, we found on the wall beside the garden door a delicate stippling of the yellow flowers, with an under-colour of the grass-green branches of this storm-defying and most cheerful jasmine. It was like life starting from the grave, and at all events it was an assurance that the grave had not closed over all things, as it seemed likely to do, when the twelve days’ fog of the preceding February had carried both heart-break and sorrow into innumerable homes where the winter had begun with mirth and gladness. Such a plant is a pearl of great price, although it may be bought with a shilling, and will grow anywhere, even in the stuff the builders call “dirt.” As any soil will suit this plant, so will any aspect. But a sheltered corner, and if possible a dry, warm, sandy soil, should be chosen for it, in order to secure its flowers in plenty in the very depth of winter. Then you have but to nail it carefully to the wall or fence, and prune it just enough to keep it tidy. To employ the knife in any way, with a view to promote the production of flowers, will prove a grave mistake. Let your tree grow in its own way, and it will flower in its own way, and that will be the best way. But you may cut a

little here and a little there to insure regularity of growth, and if any portion of the tree appears exhausted through age, cut the branch away to the base, and at the same time remove a few inches of the top soil, supplying its place with fresh turfy soil or half-rotten stable-manure. There must be no "cut-and-come-again" practice with this jasmine, or you may have to whistle for flowers, and that is a profitless pastime on a winter day when the wind already whistles too loud for any one to hear your piping.

There are several fine species of jasmine adapted for general use that are but little known. *Jasminum fruticans* is of upright habit, with dark green glossy leaves and yellow flowers. *J. humile* is like the last in general character, but more humble in growth; the flowers are yellow. *J. revolutum* makes a handsome bush, the leaves dark green, the flowers yellow and fragrant. All these are hardy, and flower during the summer. In places well favoured as to climate a few fine species that are a trifle tender may be planted, such as *J. pubigerum*, *J. Wallichianum*, and *J. heterophyllum*, which have yellow flowers; and *J. Azoricum* and *J. odoratissimum*, which have white flowers. Any good soil will suit this group, but they need dryness and warmth, and are quite too tender for the climate of London. The fruits of the jasmines are not often seen, but in hot dry seasons the common white jasmine (*J. officinale*) will in favourable localities produce quite a crop of its round berries, of the size of smallish peas, and of a dark colour.

If you happen to have any extent of walls that might with advantage be devoted to the production of winter flowers, the following may be planted with a prospect of



happy results :—*Chimonanthus fragrans*, a very fine subject when in a snug, sheltered nook ; *Chimonanthus grandiflorus* and *C. luteus* ; *Forsythia viridissima*, *Garrya elliptica*, and *Cydonia Japonica*. The first and the last of the list are the best, and any good soil will suit them.

“ ———When thy heart, in its pride, would stray  
From the first pure loves of its youth away—  
When the sullyng breath of the world would come  
O'er the flowers it brought from its childhood's home,  
Think thou again of the woody glade,  
And the sound by the rustling ivy made—  
Think of the tree at thy father's door,  
And the kindly spell shall have power once more.”

HEMANS.

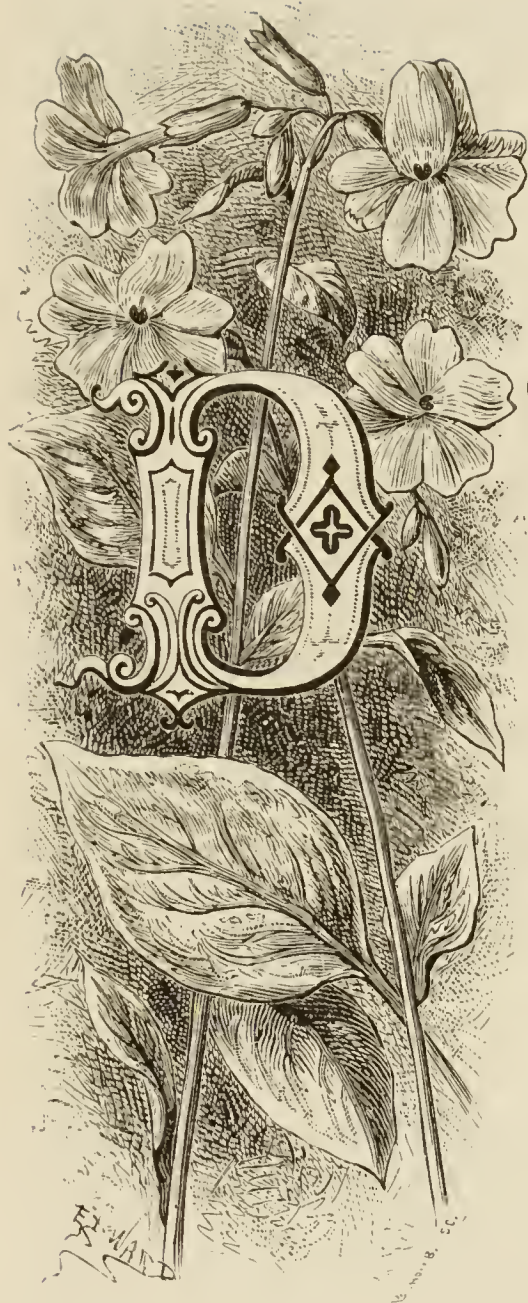






BROWALLIA.





## THE BROWALLIA.

*Browallia elata.*

O not little things possess a special value of their own, as great or even exceeding the value of larger things? Pearls, rubies, emeralds, diamonds, and forget-me-nots, for instance, which are certainly small as compared with cabbages, cauliflowers, and pumpkins. And having mentioned forget-me-nots, we are tempted to speak of this Browallia as the American, or more properly, perhaps, the Occidental forget-me-not, for it comes from the tropical parts of the western continent, which nobody ever thinks of when America is mentioned, the northern parts thereof having a monopoly of our attention. There is another and nearly allied species called *B. demissa*, but it is not much grown, for the simple reason that it is not so good a plant as *elata*, of which there are two varieties—the blue, which is here figured, and the white, which differs only in the colour of the flowers.

To grow this pretty annual it is necessary to sow the

seed in light, rich soil in the month of March, and put the pan containing the seeds on a mild hotbed or in a warm greenhouse. When the plants are somewhat forward they should be pricked out into pans or pots, and have another term of culture in a warm house, and having been hardened by careful exposure to the air, be planted out where they are to flower. The rough treatment that suits some half-hardy annuals will simply fail to produce a fair bloom of this pretty plant, for it requires a long season of growth before flowering, and is decidedly tender in constitution. When well grown, however, it is replete with refined beauty, owing to the profusion and delicacy of its tiny slaty-blue flowers, and so we recommend the diligent amateur who can care for little things to grow a few nice specimens in pots. Having raised the plants on a moderate hotbed, prick them out to strengthen as already advised, and instead of planting them out to flower, put them in eight-inch pots, about four plants to a pot, using rich, light soil, and grow them on in the greenhouse, training them up with care, and keeping them near the glass and well ventilated.

The elegant *Schizanthus pinnatus*, *S. porrigens*, *S. Grahami*, and *S. retusus* are closely allied to the *Browallia*, and may be grown in the same way, but are less in need of heat, as they are hardier. At all events, the two first-named are hardy enough to be sown on the open border, but are good enough to repay the trouble of growing them well in pots, for they make most charming specimens; and the better if sown in autumn, so as to have a long season of growth before flowering.

These flowers belong to the important order *Scrophularineæ*, in which we find not only the *Browallia* and *schizanthus*, but the *calceolaria*, *verbascum*, *antirrhinum*,

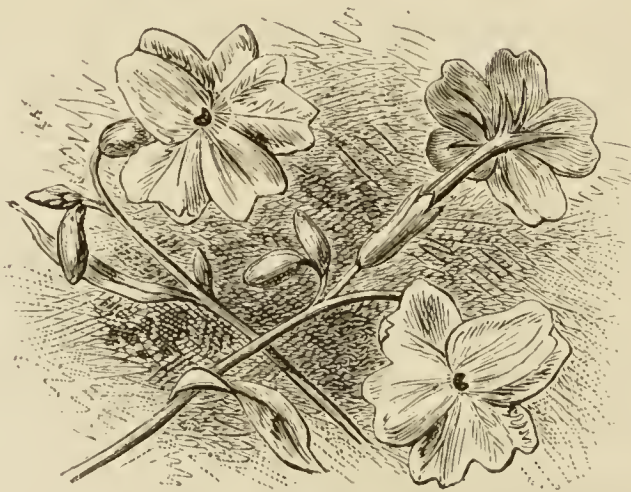


the pentstemon, and the mimulus, with many more garden favourites that to the casual eye have but few traces of a family likeness.

The Browallia was so named by Linnæus in remembrance of J. Browallius, Bishop of Abo, which was formerly the seat of government in Swedish Finland, and still is the seat of a Lutheran archbishopric, although now it is a Russian and not a Swedish city, having passed over with the whole of Finland at the peace of Frederickshamm in 1809. Finland was a botanical playground to Linnæus, and its capital Abo was to him the most important, because it was the nearest centre of learning and liberal thought. Commemorative names of plants are in many respects objectionable, but there is something to be said in their favour, and in any case the names that Linnæus bestowed on plants "the world will not willingly let die." Of one flower in particular may this be said, for the delicate two-flowered Linnæa, the *Linnæa borealis* of the botanist, he named after himself. It is a humble creeping shrub of the cold morasses of the north, producing exquisitely beautiful though unattractive miniature bell-flowers in pairs. The great botanist, remembering his own humble origin, and conscious of a merit that then had not been generally recognised, chose this flower for the emblem of his own career, and described it as "a little northern plant, flowering early, depressed, abject, and long overlooked." It may not be too wide a departure from the course set before us to remark that in those few words we have a great poem, wanting neither verse, nor rhyme, nor music to indicate the pathos that cannot be concealed. Linnæus was indeed a poet, though he was and is properly ranked among the soldiers of science.



The *Browallias* may be advantageously employed to embellish the greenhouse and conservatory during the summer. For this purpose we have not so great a variety of flowers as may appear from a casual consideration of the subject, because a large proportion of decorative plants thrive so much better when planted out than when kept in pots and flowered under glass. These little tropical forget-me-nots enjoy the shelter and comparatively uniform temperature of the greenhouse during the summer, and in places where the climate is usually unfavourable to tender plants in the open ground it is advisable not to plant them out, but to grow fine pot specimens for flowering in-doors. Then it will be found that the two varieties of *B. elata*, giving flowers white and blue; with *B. pulchella*, with flowers rosy purple; *B. grandiflora*, with flowers yellow; and *B. Jamesoni*, with flowers orange—will make an interesting collection. Associate with them a few fine pot specimens of the delicate *schizanthus*, and the conservatory will not lack interest and beauty.





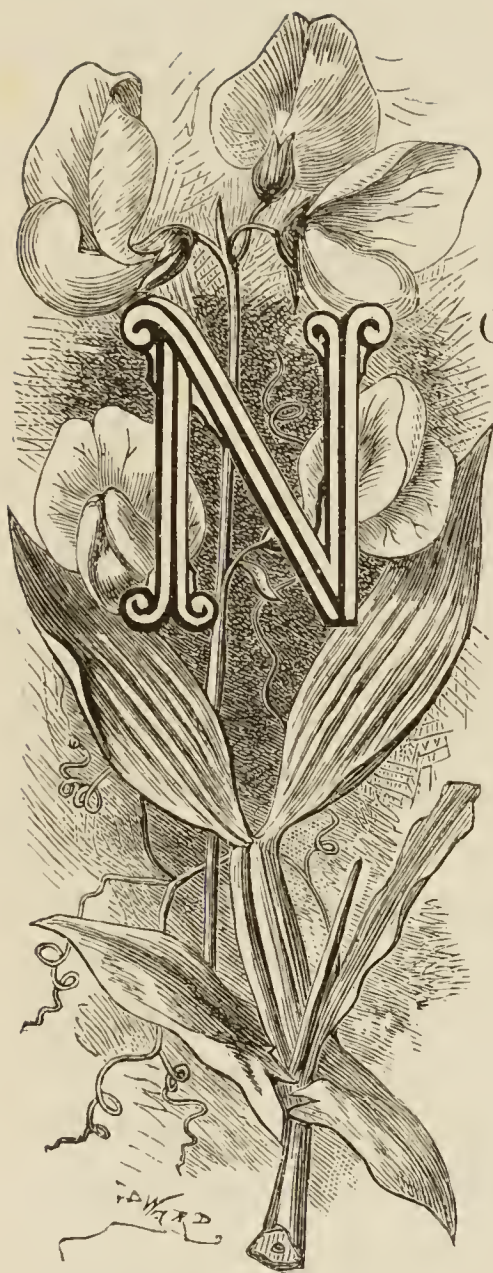


EVERLASTING PEA.



## THE EVERLASTING PEA.

*Lathyrus latifolius.*



ONE of the old-fashioned flowers, as it is the new fashion to call them, can fairly stand before the half-dozen sorts of everlasting peas that may be met with in gardens where fashion is unknown and beauty is pre-eminent. When they have held their ground a few years, and have made great bosses of rampant growth, crowned and crowded with flowers, they are altogether glorious. They are a little too riotous in temper, too exuberant in spreading themselves about, for the very trim garden where straight lines prevail and the knife and shears are kept constantly at work ; and yet it must need a curious frame of mind in any one who, having seen a clump of everlasting peas in flower, should after that desire to limit their growth or put them out of the garden altogether.

The rambling botanist who cares not for garden flowers will scarcely turn aside from these, for they will remind him of some of the glorious wildings of the pea tribe he

has met with in his wanderings, such as *Vicia cracca* and *Lathyrus sylvestris*, which are apt to throw their arms about as if the hedgerows belonged to them, and boundaries and rights had never been heard of in the land. And it is worthy of remark that these splendid wildings may be easily introduced into the garden by simply gathering the ripe seeds (of which the plants produce plenty), and sowing them where they are to remain, taking care, however, to give them a reasonable chance of struggling up into the light in positions similar to those they find for themselves in their vast domain of no-man's-land. As a rule, a sandy soil suits them best, as may be known by their frequency in sandy districts ; but they like good living, and starving land will not produce many vetches, whether wild or cultivated. In like manner all our cultivated species of *lathyrus*, *orobus*, and *astragalus* do best on a deep sandy loam. But they are not very particular, provided they have a good soil of some sort, and are left alone for a few years to become well established in it. Indeed, nine-tenths of the best of our hardy flowers only ask to be left alone to find delight in doing their duty. If they are transplanted about from place to place—as it is the way of beginners to treat all their plants—they take the sulks and refuse to flower, or they take themselves off, and so teach a lasting though disagreeable lesson.

The round-leaved pea (*Lathyrus rotundifolius*) grows to a height of about two feet, and flowers in August. The flowers are produced in long loose clusters of a bright rosy purple colour. It is a native of the Caucasus, and thoroughly hardy. Its low growth precludes its employment to cover arbours and trellises ; but it is a good rockery plant, and may with advantage be planted where it can



run amongst low shrubs, and find a little support for its delicate stems.

The broad-leaved pea (*L. latifolius*) is no doubt a variety of our woodland pea (*L. sylvestris*). It will run to a height of six to eight feet, and flowers somewhat early in the summer, the flowers being of a rich rose colour. It has been found growing wild in several districts far removed from each other ; but has always been regarded as an escape from gardens rather than as an indigenous plant.

The white everlasting pea is a variety of the last-named. Its distinguishing characteristic is seen in its pure white flowers, which blossom in prodigal profusion ; for the plant produces but few seeds, and thus reserves its energy for display. While other kinds of everlasting peas are easily multiplied by sowing seeds, this must be increased by division of the roots or by striking cuttings. Happily, there is no difficulty in either practice. The proper time to strike cuttings is when the new growth is rising in the spring, when the young shoots, being planted on a moderate hotbed, will make roots in the course of a few days, and soon after begin to grow vigorously.

This fine plant may be employed in a variety of ways in the garden. It is one of the finest of its class to train to the walls of an artificial ruin or about any quaint, rustic edifice that needs the embellishment of delicate but riotous vegetation. And it makes a fine bedding plant, being regularly dotted all over a large bed, and assisted to diffuse its growth by means of light brushwood laid amongst it. The folks who have succeeded in making grand beds of the new varieties of clematis will find the white everlasting pea a fine companion subject for them.

The marsh vetchling (*L. palustris*) grows two to three



feet high, and produces rather small clusters of bluish-purple flowers early in the summer. It is a bog plant, and when planted in the garden, therefore, a damp situation will suit it best.

The large-flowered pea (*L. grandiflorus*) is a fine plant, with hairy herbage and large rosy flowers, produced in clusters of two or three. It runs about four feet, and requires a warm sandy or light loamy soil. It is a capital plant for the front of a rockery.

The Californian pea (*L. Californicus*) runs about four feet; the flowers are light purple and white, extremely pleasing. This also is a good rockery plant, being allowed to fall over and make festoons in its own way.

The tuberous pea (*L. tuberosa*) is of low growth, rarely running more than three feet, and generally less. The flowers appear early, and are of a pleasing rose colour. It is a good rock and border plant. The tuberous root is edible, and has been sometimes spoken of as a likely substitute for the potato. But there is no substitute for the potato, unless it be bread—which is like saying the best substitute for silver is gold.



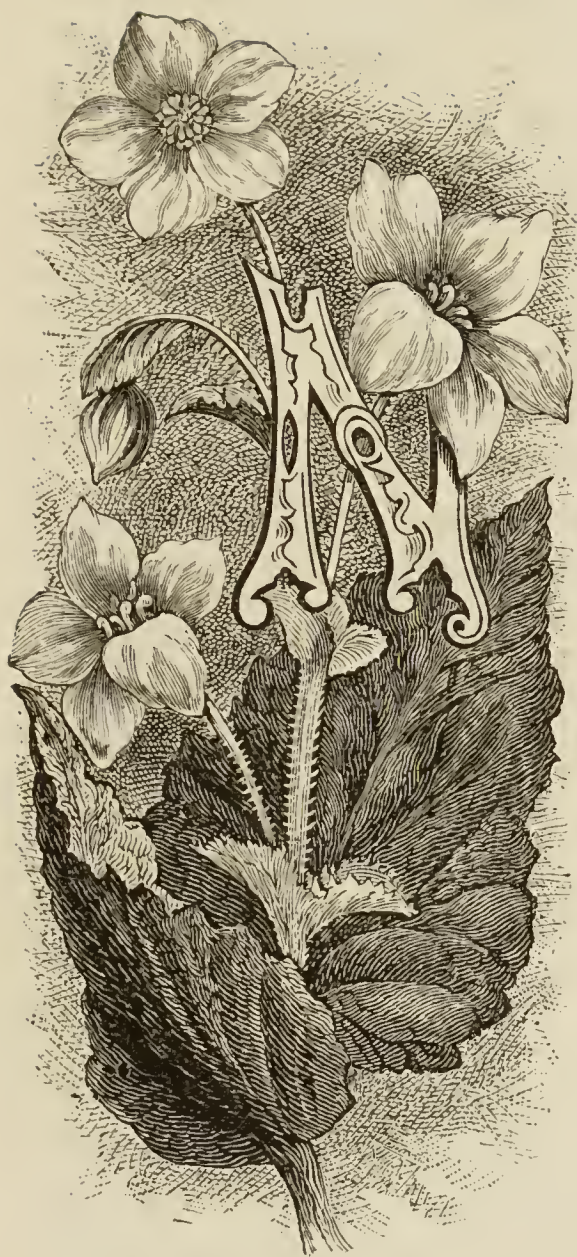






WHITE BEGONIA.





## WHITE BEGONIA.

*Begonia Mont Blanc.*

ONE of the newer kinds of garden flowers have higher claims on the attention of amateurs than the tuberous begonias. The hybrid clematis may rank equal in importance, and certainly should not be ranked far below them. The begonias are so nearly hardy, so easily grown, whether as specimens for the conservatory or as useful flowering plants for the summer garden, and are withal so various and beautiful, that the lovers of gardens may be well advised to take them in hand with earnestness, and to add

to their number by the systematic raising of seedlings.

It is not necessary to grow these plants from seed, because the named varieties are low-priced and easily obtainable. But there is great interest attaching to the raising of seedlings, and we shall advise as to the procedure. If a collection of the finest kinds are flowered in a light airy conservatory, there will be abundance of

seed produced. It will be advisable to fertilise the female flowers—which are easily distinguished by the incipient seed-pod at the base—with pollen taken from male flowers differing from them in colour. The seed-pods should be pinched off before the seeds begin to scatter, and being laid loosely in a clean box or glass dish, will soon ripen, and none of the seed will be lost. The seed is as fine as snuff, and in sowing it care should be taken not to cover it with soil at all. Prepare some shallow boxes or pans, with about three inches of light rich soil—say turfy loam, clean leaf-mould, and very old rotten hotbed manure in equal parts. Having sprinkled some sand over the surface and pressed it flat with a board, sprinkle the seed very thinly, and then cover with a sheet of common glass. The soil ought to be moist enough to need no watering until the plants are up, but should water be needed, the boxes or pans must be immersed nearly to the top edge for an hour or two, and should then be removed. In a warm greenhouse or pit the seed will soon germinate, and the seed-boxes will present the pleasing appearance of hundreds of young begonias.

The best time for sowing the seed is during February and March, as the young plants have the whole summer before them to complete their growth. Being carefully pricked out into other pans or boxes, and as soon as large enough separately potted, they will grow rapidly, and the whole of them will flower before the season is past. As they flower those of no merit should be destroyed; the best of them should be named or numbered; and a few plants may be struck from cuttings of any decidedly good ones that flower early.

The result of a season's growth will be the formation of



tuberous roots, and the best way to keep these is in the pots without disturbing them. If nearly, but not quite, dust-dry, and guarded from frost, they will be perfectly safe through the winter. In the month of February they should be shaken out and planted in shallow boxes filled with a similar soil to that recommended for the seeds. It is a matter of importance never to put them in pots or boxes containing more than two or three inches of soil in the first instance, for in a deep soil they are apt to rot; but in a shallow soil they are sure to grow, the temperature of a warm greenhouse being sufficient for the purpose. A moderate amount of care will insure a fine lot of plants by the end of May, when they should be very carefully "hardened" in frames to prepare them for planting out. About the second week in June is, generally speaking, the best time to put them out in beds; but in the southern and western counties they may be put out at the end of May, and provided they are not punished by frost, it may be said the sooner they are planted the better. They will flower superbly, and in all adverse seasons it will be found that these frail, succulent, and comparatively tender plants endure wind and rain with less harm than any other bedders. In a dry hot season they must have plenty of water, but in an average season they will need but little or none.

The following varieties for summer flowering constitute a fine collection:—Mont Blanc, Coral Rose, Countess of Kingston, J. H. Laing, Lady Hume Campbell, Lemoinei, Trocadéro, Mrs. Laing, Louis Thibaut, General Roberts, White Queen, Laing's Superba.

To produce fine specimens some strong plants should be dried off and rested as soon as convenient, without



imposing any check. At the turn of the year these should be shaken out and re-potted in fresh soil in smallish pots, and put into a temperature of  $50^{\circ}$  to encourage growth. When inclined to move, the heat should be increased to  $60^{\circ}$ , and after a time to  $70^{\circ}$ , but beyond that it will not be safe to increase the temperature. When the plants so treated have filled their pots with roots they should be shifted to the next size, and be again and again shifted as needful, but never until the pots are filled with roots, and never beyond a reasonable size of pot. If the shifting into larger and larger pots is carried too far, there will be immense growth but no flowers, therefore you may reasonably stop when the plants are in 8-inch or 10-inch pots. Then let them flower, and you will be well rewarded. As a matter of course they must be kept neatly staked, and flowers that appear before the plants have attained to a suitable size must be pinched out. A compost consisting of loam, leaf-mould, and very old manure from a hotbed is the best for them ; rank or fresh manure is objectionable, and liquid manure should be given occasionally.







SWEET PEA.





## THE SWEET PEA.

*Lathyrus odoratus.*

It is a singular circumstance that the sweet pea has been commonly regarded as a half-hardy annual, whereas it is as hardy as any pea in cultivation, and the seed may not only be sown in February in the open ground, but in November, and if the mice do not eat it the winter will not kill it, and in due time the plants will appear with the sunshine of the early spring. But this fine plant deserves extra care, and should never be grown in a careless manner.

It is the custom with many gardeners to sow the seed in pots and nurse the young plants in frames, but we prefer to sow them where they are to remain, and to defer doing this until the middle of March, for if the plants come up with a flush of warm weather before the frosts are over, they are apt to be nipped, and transplanting puts them back, so that to raise them in pots for the purpose is decidedly objectionable. Thus we simplify the

ordinary cultivation, but we must urge that what is done should be done well. A piece of mellow soil in an open situation should be prepared, by being well dug and rather liberally manured, in autumn or winter, and when the seed is sown this should be dug over again and the lumps broken to make a nice seed-bed ; then sow in a neat drill an inch and a half deep, and very soon after the plants appear put to them stakes of brushwood about four feet high, selecting for this purpose the neatest and most feathery pea-sticks you can find. Peas that are grown to eat may be supported roughly, but peas that are grown to be admired for their beauty should be supported in the neatest manner possible ; therefore wire trellises and "rissels" made for the purpose may with advantage be employed, especially when the peas occupy a prominent situation in the garden.

In the event of dry hot weather occurring early in the summer, sweet peas should be liberally watered two or three times a week, and if the natural soil is sandy or chalky it may be advisable to mulch the rows with half-rotten stable dung, which, if needful, can be concealed with a sprinkling of earth. To keep them flowering freely to the end of the season, all the pods should be removed upon becoming visible, and the plants, being thus relieved of the tax upon their energies the swelling of the seed would entail, will maintain their vigour more completely, and flower the more freely in consequence.

The commonest sample of sweet peas, that may be bought for a penny at the nearest stall, is worth sowing and growing, and will give delight to all who see and smell the flowers. There are no bad sorts in cultivation, and so if the seed is alive, that is enough. But those who take a



pride in growing fine flowers will do well to secure seeds of some of the named varieties of sweet peas that are offered by the great seed-houses, for they are distinct and glorious, and will contribute in a most especial manner to the delights of the garden, and at a cost so small that it would be a breach of politeness in this connection to talk about money. Secure a supply of each of the sorts that are on offer, and sow them separately; you will then have only half a dozen rows at the utmost, for there are not more than as many sorts in the lists. Or—happy thought!—mix them and sow them thinly in well-made ground, and then you will be able to gather several sorts on the same spot, which will often prove a convenience. They are extremely useful for decorative purposes and large “nosegays,” but must be used with caution in bouquets and button-holes.

Peas are “papilionaceous” plants—that is to say, their flowers are like butterflies.

“Here are sweet peas, on top-toe for a flight,  
With wings of gentle flush o’er delicate white.”

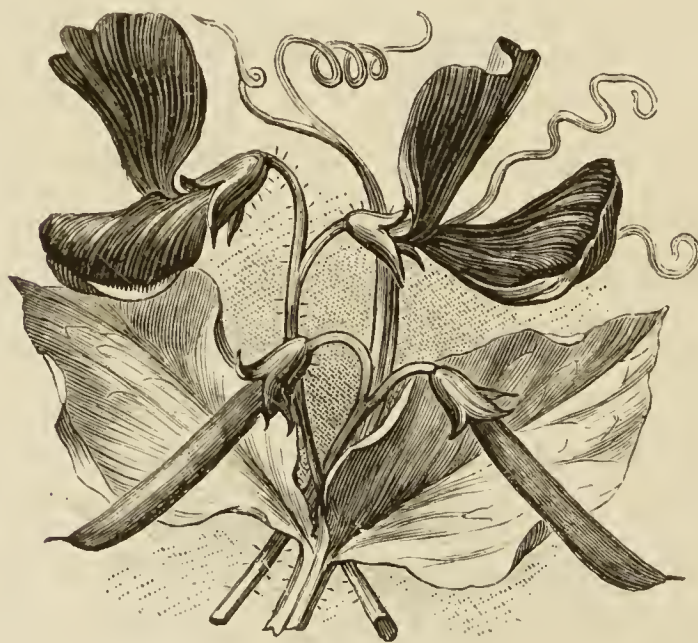
They are also “leguminous” plants—from *legumen*, pulse—the seeds being substantial nutritive things produced in cases or pods which are sometimes like parchment, sometimes like paper, and sometimes tender and sweet, so that, as in the sugar pea, the whole thing is eaten, or, as people say, the “whole hog, skin and bristles.” Poor “Bully Bottom” called upon Master Peas-blossom to scratch his head, and being thus scratched by Master Peas-blossom, he must needs have a donkey’s appetite, and desire “a bottle of hay” or “a handful or two of dried peas.” Nor need the donkey be ashamed of his relative, for the



choice of peas was not a bad choice, and it might be well for mankind at large, as well as for the asinine brotherhood, were peas more extensively relied upon as a kind of food likely to "stick to the ribs." As regards usefulness, the pea family is one of the wonders of creation; but as we cannot afford space to be scientific, we shall quietly quit the subject while our shoes are good.

"An early worshipper at Nature's shrine,  
I loved her rudest scenes—warrens and heaths,  
And yellow commons, and birch-shaded hollows,  
And hedgerows bordering unfrequented lanes:  
Bower'd with wild roses, and the clasping woodbine  
Where purple tassels of the tangling vetch  
With bittersweet, and bryony inweave,  
And the dew fills the silver bindweed's cups.  
I love to trace the brooks whose humid banks  
Nourish the harebell, and the freckled pagil;  
And stroll among o'ershadowing woods of beech,  
Lending in summer, from the heats of noon,  
A whispering shade, while haply there reclines  
Some pensive lover of uncultured flowers."

CHARLOTTE SMITH.







HONEYSUCKLE.





## THE HONEYSUCKLE.

*Lonicera caprifolium.*

VERY plant has its place, as every dog has its day, and the very place for this honeysuckle is the wall of a comfortable English cottage, whereon it appears more at home than anywhere else in all the world, not forgetting the woods in the south of Europe, wherein it plays the reveller, and perfumes the breeze. We call it British, and may find it occasionally in a wild state; but it is a doubtful native, although well adapted for naturalisation in woods and thickets and the wilder parts of garden scenes.

The smaller and ever-welcome woodbine (*Lonicera periclymenum*) is beyond doubt indigenous, and is one of the most widely-diffused of our woodland vines, and worthy of its renown in song and story. Titania, addressing the ridiculous weaver of Athens, says :—

“ I will wind thee in my arms.  
So doth the woodbine the sweet honeysuckle  
Gently entwist.”

But this passage, perhaps, we should not have quoted, because of the grave question arising out of the distinction implied between the "woodbine" and the "sweet honeysuckle." However, we will meet the difficulty, because it is one of great interest. The explanation is that there is in English poetry more than one woodbine, but there is only one honeysuckle. The woodbine of Shakespeare was, in all probability, the convolvulus. Gifford pointed out the true meaning of the passage in his note upon a parallel passage in Ben Jonson :—

"Behold  
How the blue bindweed doth itself enfold  
With honeysuckle, and both these entwine  
Themselves with briony and jessamine."

Readers of the "divine bard" may remember that a certain hostess (2 "King Henry IV.," ii. 1) denounces the mighty Falstaff as a "honeysuckle villain" and a "honey-seed rogue," by which, perhaps, we may understand that she thought his fair words and winning ways made him doubly dangerous as a creditor and a cheat. It is agreeable to turn from the theatrical weaver and the stout knight to the invitation of Hero in "Much Ado about Nothing" (iii. 1) to

"Steal into the pleachèd bower,  
Where honeysuckles, ripen'd by the sun,  
Forbid the sun to enter; like favourites  
Made proud by princes, that advance their pride  
Against that power that bred it."

Now to turn from poetry to the garden itself. There are from eighty to a hundred species of *Lonicera* adapted for the English garden, but only half a dozen or so have hitherto obtained much attention. The peculiar "perfoliate" character of *L. caprifolium* is displayed in the illus-



tration, this style of leafage being called by the botanists "connate." Of the common *L. periclymenum* there are several varieties known—Dutch, Belgian, oak-leaved, late-red, &c., all of which have some degree of special merit; but the variegated-leaved variety is worthless. One of the very best for a good place in the garden is *L. sempervirens*, the trumpet honeysuckle, an American species, with bold heads of scarlet flowers, which are inodorous. Under the name *Lonicera brachypoda* we may group half a dozen garden varieties, such as *L. Chinensis* and *L. Japonica*; and here we find one of the most beautiful of the family in that called *Aureo-reticulata*, which is exquisitely rich in its leafage, and well worth attentive observation. It will be noticed that at one time the leaves are lobed like those of the oak-tree, and at another time they are simply ovate or elliptical, without lobes, for they alter in form as they grow, and they are always richly painted with bright-green lines on a ground of gold-yellow or full deep orange, which acquires rich tinges of red when the chills of autumn check the growth. Wherever this plant can be accommodated with a trellis, or can be carried by an arch over a walk, or have careful training up a wall to a height of ten to twenty feet, it should be allowed "a chance." It will grow grandly and flower sweetly, and if it happens to be the only plant of Japan you possess, it will compel you to cherish agreeable thoughts of that interesting country, from which we have derived a very large proportion of our most valued garden flowers.

The winter-flowering honeysuckle (*L. fragrantissima*) is an extremely useful but altogether unattractive shrub. It grows in a style similar to a lilac, and does not climb or riot at all. Its light green leafage is agreeable in summer;



in fact, it is quite a respectable border shrub. But its best quality is its production very early in the year—even in January if the winter be a mild one—of an abundance of small white flowers that are very sweet-scented.

The genus *Lonicera* is named in honour of Adam Lonicer, a physician and naturalist, born at Marburg in 1528. He studied at Mentz, took the degree of doctor in 1554, and soon after settled at Frankfort, where he practised as a physician. He wrote many books, but one only appears to have acquired a lasting renown; this is the "*Naturalis Historiæ Opus novum*," in two parts, first published in 1551 and 1555. In the second part there is much curious information about plants, and particularly those that grow near Frankfort; and it contains a list of plants in various languages to which the student of botanical terminology may refer with advantage.

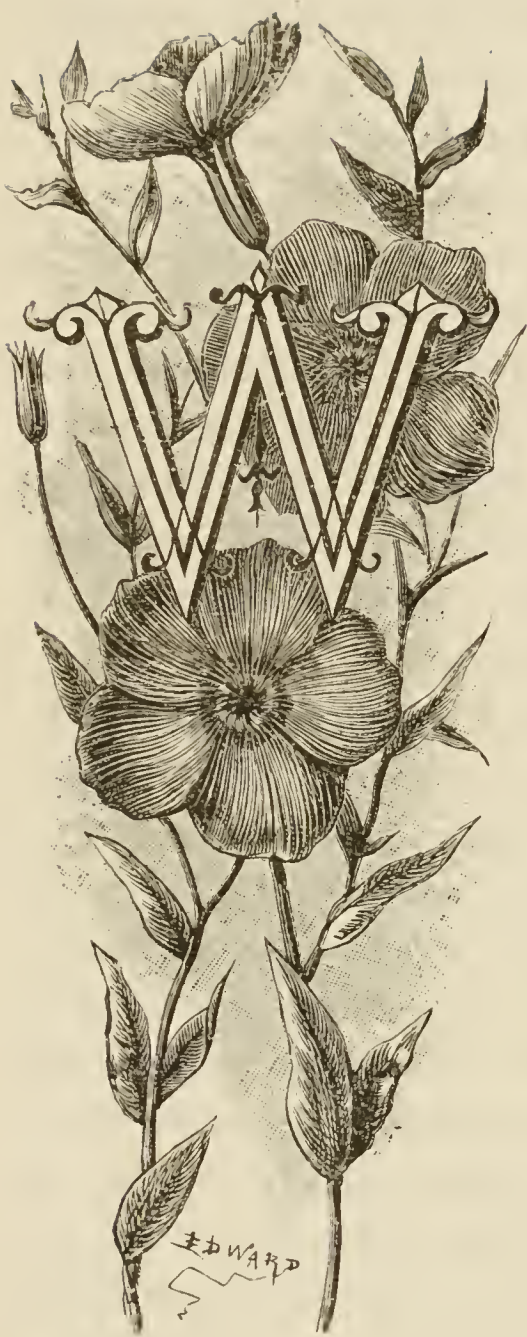






CRIMSON FLAX.





## THE CRIMSON FLAX.

*Linum grandiflorum.*

WHEN Pharaoh trembled to behold the plague of hail, "and fire mingled with the hail, very grievous," he repented, and besought Moses to "intreat the Lord;" and Moses spread abroad his hands, "and the thunders and hail ceased." Then it was found "that the flax and the barley was smitten: for the barley was in the ear, and the flax was bolled." This passage establishes the cultivation of flax in Egypt 1,500 years before the Christian era, and over 500 years before the time of Homer, who speaks of it as representing an important domestic industry. Herodotus describes the Egyptian priests

as wearing linen garments, as in after-times was the custom of the priests of Israel, as ordained in Exodus xxviii. The common annual flax bearing blue flowers was, in all probability, the plant grown for fibre from the earliest times in all parts of the Old World.

Whatever may be the economic relations of the crimson flax, there can be no mistake as to its rank as a garden plant. It is certainly one of the most splendid hardy annuals known, and is capable of becoming a perennial under suitable management. Its average growth is twelve to fifteen inches; the leaves are elliptic to linear, the upper ones the largest. The flowers are in a loose terminal panicle, each measuring about one and a half to two inches across, salver-shaped, the colour deep carmine or crimson, the claw of each petal streaked with white lines, and divided from the limb by a transverse mark of red-brown; the sepals have white margins. Thus it will be seen that when the flowers have been admired for their fine form and rich colour, some entertainment may be derived from a minute examination of their structure.

To grow this plant to perfection is an easy task. The first step to be taken is to insure a true sample of seed, for worthless kinds of flax are sometimes sold for it. The soil in which the plant makes the finest growth is a free, fertile, sandy loam, but any soil in which summer flowers usually thrive will suit it. The seeds should be sown in a pan in a frame in the month of March, and be carefully nursed until the plants are large enough to handle, when they should be planted out six inches apart. From the time the seedlings appear they should have plenty of air and light, for if at all drawn or weakened in the early stages the bloom will be less satisfactory. A sunny open position should be chosen for the bed, and a few waterings must be given if the weather is dry when they are newly planted out. If sowing in a frame be not convenient, the seeds may be sown where they are to remain some time in April, or if the soil be naturally dry and warm, in

March, and in due time the plants must be thinned to six inches apart. They require no support and no special attention, and dryness with heat will do them no harm if they have been assisted in the early stages to become well established.

In common with most other plants, the crimson flax is greatly benefited by systematic removal of the flowers as their beauty declines, to prevent the growth of seed. But if seed be wanted, they must be allowed to run their course, and the round seed-pods must be gathered when nearly ripe, and be spread in the sun under cover to finish, when the seed may be shelled out, and stored away in a paper or linen bag.

The common flax (*Linum usitatissimum*), although but little prized as a garden plant, is not wanting in beauty. Its extremely light and airy style of growth, and its comparatively large salver-shaped blue or white flowers, render it an interesting if not an attractive plant. Of its uses it would be almost idle to speak here, because we could not hope in a few words to convey to the reader anything that is not already well known. However, at the risk of retailing stale news, we will briefly record that we have seen flax fibre prepared for the workers in Brussels lace, and have experienced surprise at the excessive care bestowed upon the business, while all wonder as to the high prices of the best kinds of lace was by the same experience taken away. The flax is grown with great care at Hal and Rebecque, and the retting is conducted with scrupulous nicety, to secure clean fibre of great strength. The thread for the lace is spun in rooms kept nearly dark, to discipline the eye and the fingers to the delicate task of rejecting all that is



faulty and securing a thread of exceeding fineness and great strength. As regards the strength, indeed, some samples that are as fine as the threads of a spider's web are nevertheless as strong as a metal wire. The result of all this care is that the thread is worth its weight in gold before the making of the lace begins. There is now much inferior thread used in the production of cheap laces, but certain manufacturers of Brussels maintain the high quality for which their city has long been famous, and those who care to pay the price may obtain lace of modern make, equal in every way to the best of laces that have acquired historical renown.

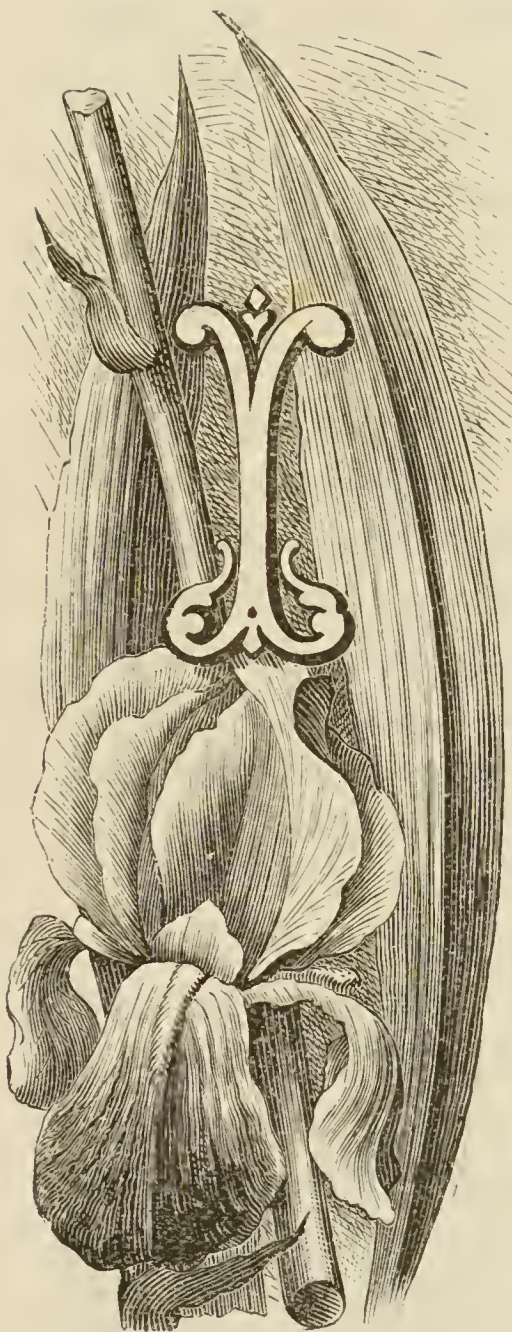






IRIS.





## THE IRIS.

*Iris Germanica.*

RIS was the daughter of Thaumas and Electra, and her office was that of messenger to Juno. Therefore it is that in the “Iliad” and the “Æneid” this “lady of colour” has important business to transact, and, as a matter of course, her traffic between heaven and earth is facilitated by that prehistoric railroad and aerial bridge, the “bow bent in the sky,” resplendent with innumerable tints. The hues of the rainbow are seen in the human eye, for in truth the bow is there—

“Bespeaking our fears, dissolving in  
tears,  
And looking to heaven through  
colours of love.”

Hence the eye, which is the sole source of our knowledge of colour, is the symbol of Iris, and the flower before us derives its name from the variety and splendour of its painting, and is, as our cousins of the West might say, a genuine “eye-opener” when summer has renewed the beauty of its bloom.

The common iris, or "flag," is *Iris Germanica*. This is well known by its distinct sabre-shaped leaves and noble blue flowers. It may be seen everywhere in London gardens, and yet where a London garden is managed in first-rate style, it cannot be counted among the most desirable plants for it. But we have now to do with its intrinsic merit, which is known to all. Given an ample range of border enclosing a croquet or bowling-green, or a free range of woodland walks, and we have a suitable domain for a collection of varieties of German iris, of which there are about fifty in cultivation. These present us with all possible colours save pure yellow and pure scarlet. They are wonderful in shades of blue, purple, lilac, lavender, brown, orange, buff, and pearly grey, put on in blotches, patches, circles, spots, marginal lines, and delicate pencillings. Any garden would be rich with a collection of these, and to examine and criticise them when in flower would afford many a summer day's delight. Any good deep garden soil will suit the German iris.

Another remarkable section of the family is that known to botanists as *Iris laevigata*, but in gardens denominated *Iris Kämpferi*. This species has been for centuries cultivated by the Japanese, and the best of their varieties have been subjected to comparison and improvement in Holland and Germany, and one result is that the named sorts now available for the English garden are as worthy of a place in it as any hardy plants known. They differ from all other irises in the size of the flowers as compared with the leaves, the large lobes of the flowers, and the predominance of rich deep hues of crimson and purple with other colours amongst them. A rich deep soil and



an open situation are requisite to ensure a good growth of *Iris Kæmpferi*, and it thrives best in open beds.

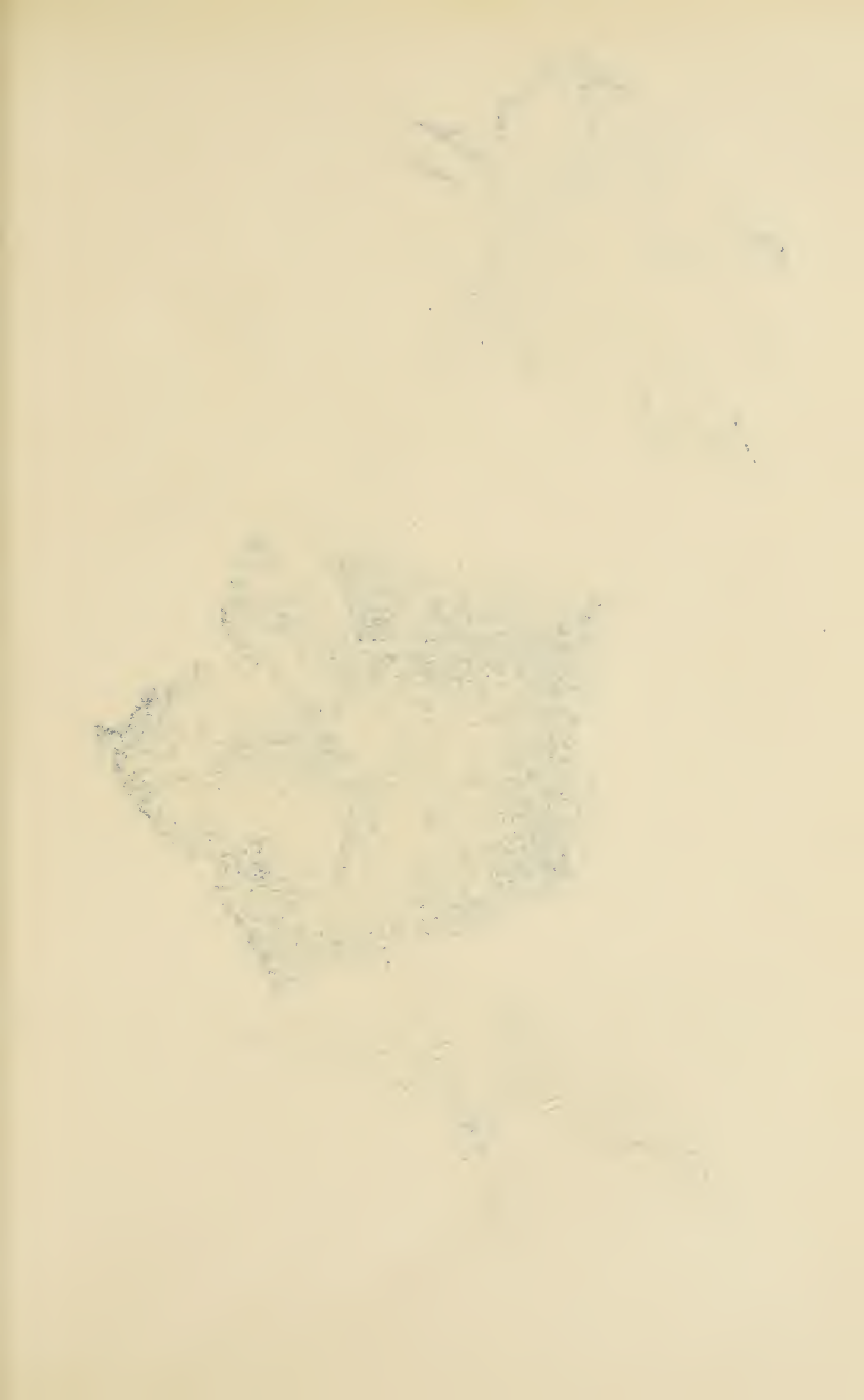
A third section comprises those known in gardens as Crimean irises, *Iris pumila*. These are of dwarf growth; they flower freely, and are very gay, while their neatness of habit fits them for edging flower-beds, and of course they would be appropriate to give a finish to beds containing the larger and grander varieties. The colours that prevail amongst these dwarf irises are purple, dark blue, pale blue, straw-yellow, and white. They will thrive in any soil, but attain to their fullest perfection in a rather dry, deep sandy loam or sandy peat. They have increased and flowered freely on our heavy, damp clay, and therefore we are not afraid to say that any soil will suit them.

It is proper now to remark upon a few species that are calculated to afford much entertainment to the amateur of hardy plants, and it is the more desirable to mention them in this notice, because they are at once cheap, beautiful, interesting, and but little known beyond the narrow circle of advanced florists and horticultural botanists. *Iris cristata* comes near to the Crimean iris in general characters; the flowers are blue, with deeper blue spots, and wavy ribs, or "crests," tinted yellow and orange. *Iris Florentina* may be added to the Germanic group as nearly related to them; the flowers are white, with a blue tinge and a yellow beard, agreeably fragrant. *Iris foetidissima* has a bad name, but it is a fine plant, bearing lead-coloured or dull yellow flowers, which are succeeded by clusters of scarlet berries, that are very useful in Christmas decorations. A damp situation suits this plant. The variegated-leaved variety is one of the handsomest plants of its class in cultivation. *Iris iberica* is a remarkable plant, with



immense dark flowers, superbly streaked, veined, and spotted. This is scarce at present, and may be advantageously grown in pots as a frame plant. It is, however, hardy enough for a dry, warm nook in the rock garden. *Iris Monnieri* is a grand plant, with fragrant yellow flowers. It requires a rich, deep, moist soil, and a warm situation. *Iris pallida* is distinct and fine; the flowers are pale blue, with pale yellow beard; it will thrive in almost any soil and situation, and may be classed with the German irises. *Iris pseudacorus* is the common English water-flag, a truly noble species, which adorns with its golden banners many a broad river and sluggish meadow stream. It is worth a place in the woodland border, and the variegated-leaved variety is a good garden plant. *Iris reticulata* is an exquisite gem, with narrow, rush-like leaves, and flowers plentifully produced, the colours rich violet-purple, strongly stamped in the centre with deep rich gold. The extreme elegance and fragrance of the flowers, and the tendency of the plant to suffer from damp, render it desirable to treat this as a pot-plant.







CRIMSON PETUNIA.





## THE CRIMSON PETUNIA.

*Petunia phænicea.*

PLANTS of the new world often lack interest through sheer meagreness of “associations,” and the petunia is a trite example of this. Its usefulness as a garden flower rests on its beauty first, and next on the ease with which it may be adapted to a variety of circumstances for decorative effect. At page 10 of the present Series will be found some remarks upon the name and character of the plant, and we shall therefore now speak of its cultivation only.

The flower before us, which for convenience sake we name *Petunia phænicea*, is a garden variety, therefore not to be regarded as typical for botanical purposes. Indeed, we can scarcely speak of it as a proper hybrid, but rather a cross, no one knows how many times removed, from *P. violacea*, *P. nyctaginiflora*, *P. phænicea*.

and others that have been bred from in gardens, and so often crossed that it is in vain to look for distinct specific characters in the named varieties that now find favour. The seed-growers select certain showy types, taking care to insure plants of good habit, and they allow them to seed in a wild sort of way, the bees being free to cross them as they will, and the customers who buy and grow the seed being equally free to select from their seedling plants such as they consider worth a better fate than to be disposed of as annuals, which are here to-day and gone to-morrow.

Garden petunias may be classed under three heads: unnamed seedlings of various colours, named single varieties, and named double varieties. The cheapest of all modes of obtaining a fine lot is to sow the seed thinly on a well-made sunny border about the middle of April. As soon as the plants are furnished with three or four leaves, those that are crowded should be drawn out and transplanted to a similarly favourable spot, but as many as possible should be allowed to remain to flower where sown. When they are in flower the best should be marked; and if it is desired to perpetuate them, cuttings should be struck in August, five or six together in five-inch pots in sandy loam, and in these pots they should remain, having the shelter of a frame or greenhouse during the winter months. Thus you will have secured for flowering a second time, and indeed for as many years thereafter as may suit your pleasure or convenience, the best of the kinds that were in the first instance produced from purchased seed.

Now, if you have in you the spirit of a florist you will regard this little lot of selected sorts as the traditional half-



crown that the enterprising lad starts from home with when destined to marry his master's daughter and become Lord Mayor of London. The way to make your floral fortune is to plant them, let them run to seed, and thereby begin the world anew by means of seed of your own saving. You will sow, and grow, and select as before; and there is in truth no knowing to what glorious pitch of perfection you may eventually, by patience and skill, bring the petunia or any other flower that you may deal with in the same way.

We began on a cheap plan; but there is a better. It consists in buying plants of the best named varieties, and raising seeds from these, thus securing all that has been done by a thousand florists at the first start. But you are not bound to raise seedlings at all. If you want to have the best possible petunias for the least possible trouble, you have but to purchase the named sorts and grow them well, and there is an end of the matter.

To grow nice pot specimens of petunias is evidently not an easy matter, because we meet with very many at exhibitions that are not nice. The general fault consists in the growth being prolonged and rusty, suggesting to the critical observer that the plants have been crowded and far from the glass, and in some degree neglected as regards watering. The petunia is a very accommodating plant; it is very nearly hardy, and therefore should have plenty of air when growing freely. A light, rich, sandy soil should be employed in the growth of pot specimens, and the shoots should be pinched back in a slight degree in the early stages to promote a dwarf, bushy habit; and of course the training to neat stakes should proceed with every advance in the growth of the plants.



When kept under glass during the summer, the petunia soon becomes infested with green-fly, the only mode of removing which is to fumigate with tobacco smoke at night, when the plants are quite dry, and early the next day to give them a slight cleansing shower of clean water with the syringe. All plants that are nearly hardy will thrive better in frames than in greenhouses from May to October, as they can be fully exposed to light, air, and dew, and may be protected at any time from storm and frost.



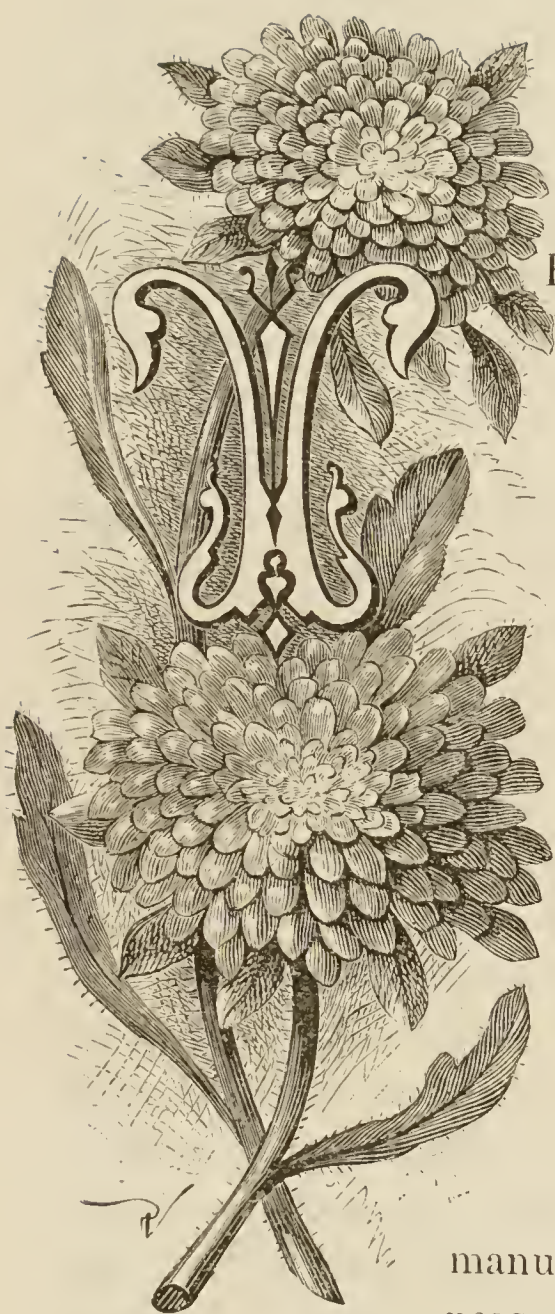






ASTER





## THE ASTER.

*Callistemma hortensis.*

THIS charming flower, which ranks with the balsam in importance as an annual, has no history, and is nothing unless well grown; therefore the best employment of the space at our command will be to frame a compact essay on the cultivation of the aster in first-rate style, with a view to the production of flowers good enough for exhibition.

It is impossible to grow good asters in a poor soil, and the water supply should be constant and plentiful. If grown in the same bed every year, it should be regularly well dug and tolerably manured, as if intended for a crop of peas or cauliflowers. But finer flowers may be secured by growing them every year in fresh soil that has not carried asters before, or at least only once in seven years or so.

The seed is usually sown too early, and the plants get starved before the season is sufficiently advanced to allow

them to be put out. The last week in March is early enough for the first sowing, and a cold frame will be the best place for the pan or box in which the seeds are sown. For all ordinary purposes it is not desirable to sow until about the 15th of April, as there is then no probability that the plants will suffer a check. The young plants should have as much air and light as they can bear, the cultivator, of course, keeping in mind that they are tender in constitution. If they have insufficient light they will become weak and wiry, and if insufficient air they will soon be smothered with green fly, and thereby seriously impoverished.

As soon as large enough to handle, prick out the young plants in a bed of light rich soil in a frame; put them three inches apart, water them well, and keep the frame rather close for two or three days; then give air with caution, and increase the ventilation daily, and they will become strong and well prepared for planting out.

A bed for asters should be made ready a few weeks before it is wanted. The third week in May is soon enough for planting out, and dull warm weather should be chosen for the business; in any case, if the nights are frosty, the plants had best remain in their snug bed under glass until a change occurs. If put out in sunny weather, turn empty pots over them for a day or two to save them from exhaustion. As a rule, they should be planted a foot apart every way, but this rule may be varied as circumstances may suggest. They should be lifted with care, so that every tuft of roots is kept intact, and should be firmly though gently pressed into their places, and then have a good watering to finish the work. The remainder of the management will consist chiefly in watering and weeding,



and both tasks must be pursued assiduously, or the flowers will be below exhibition mark.

Well-grown plants will usually produce more flower-heads than they can fully develop; therefore it is a nice point to thin them in good time. The beginner may with advantage remove all the heads save the centre and three side shoots, thus leaving only four heads of bloom to each plant. As experience is acquired, the rule may be varied, and it will be found that French asters require to be thinned more severely than German, which may in a good soil be allowed to carry half a dozen; but they should never be thinned down to one or two, because while this spoils the appearance of the plants, it does not result in the production of better blooms, for when asters are grown beyond a certain degree of strength they are likely to become coarse.

In a hot dry season, asters are peculiarly liable to the attacks of "red spider" or acarus, and "green fly" or aphid. A precaution often adopted to prevent this consists in covering the bed with a mulch of two or three inches of half-rotten dung. This should be put on as soon as the crown bud is visible, and should be followed by regular and copious watering. The healthy and vigorous growth that this treatment promotes is calculated to keep insect foes at a distance, for the sickly plant is soonest attacked by them. When the young plants are infested by green fly it is safer to dust them with tobacco powder than to use any kind of wash. As a rule, indeed, tobacco powder is always to be preferred, because dry and clean and easily washed off.

The immense popularity of the aster accounts for the number of varieties that are offered in the seed lists, for



one of the first objects of the cultivator of a flower is to promote variation and establish the most distinct and beautiful varieties. For exhibition purposes -the best varieties are those known as the Victoria, French Pæony, Giant French, and Betteridge's.

For large beds, mixtures of colours are desirable, but the flowers should be uniform in style, and therefore only one sort or section of asters should be grown in a bed. Those who know the sorts well may indeed use several in the same bed, but the safe way for the beginner is to be content with one or two—say a moderately tall kind for the mass, and a dwarfer sort for the margin. One of the best sorts for beds is the Tall Chrysanthemum-flowered, and the Globe German may be used next the margin. The Washington makes a fine bed, with immense flowers of all colours. If a choice dwarf sort is wanted for a bed, there is, perhaps, none better than the Dwarf Pæony Perfection.

For pot culture the Dwarf Victoria, Dwarf Schiller, and Dwarf Chrysanthemum-flowered are invaluable, and in common with other kinds may be had in a variety of colours. To grow them well in pots great care is requisite.









SNOWDROP.





## THE SNOWDROP.

*Galanthus nivalis.*

It will appear to the casual reader that the snowdrop is regarded, in the light of its name, as “a drop of snow.” The philologists often remind us that “obvious” derivations are always wrong. We may doubt if the sweeping declaration is a good one; but the present case justifies it so far, because the snowdrop is not a drop of snow. The reader may have seen in the jewellers’ shops and in the ears of some fair lady imitations of fuchsia flowers in precious stones, and called “fuchsia-drops.” The word before us is an exact parallel thereto. These flowers are likened to eardrops, and they are called “white flower-drops,” and that is the proper interpretation of snowdrops. The name is from the German *schneetropfen*; it implies that the flower affords a type of a class of personal adornments, and to copy it in jewellery would be in perfect taste, other matters having concurrent consideration. The Germans

have *schneebume*, white winter flower, and *schneeflocke*, snowflake. To liken a flower to a drop of snow is not reasonable, because there is no such thing as a drop of snow, and there never will be. The decorative notion of the name has not escaped the poets, as, for example—

‘ While still the cold north-east ungenial lowers,  
And scarce the hazel in the leafless copse,  
Or salallows show their downy pendent flowers,  
The grass is sprinkled with its silver drops.”

The snowdrop was known to the old or British botanists as a bulbous violet, and also as the Fair Maid of February, and by them it was properly recognised as an introduction from the Continent. Gerarde speaks of it as growing wild in Italy, and as having been thence introduced to “our London gardens.” It is a native of Switzerland, Austria, and of Southern Europe generally. When met with as a British wilding it appears to be as happy as its near relation, the daffodil, for it spreads into considerable masses, and though a local flower, is plentiful enough in the places where it occurs. There are many stations in Worcestershire, Herefordshire, and Gloucestershire where wild snowdrops may be found; and the county of Sussex can boast of a few, as it can of daffodils also. When met with in places of its own choosing, it is usually in some degree shaded, as though full exposure to the glare of the sun and the fury of the wind were not to its liking. As regards soil, however, it is not at all particular; but we may say that in cultivation a deep sandy loam is best for it, as it is for about nine-tenths of all the border and rockery flowers that are most valued in gardens. Snowdrops increase quickly, and flower freely-if allowed fair play; but unfair play obliterates the plant, for it resents insult by terminating an



objectionable existence. To do justice to it, the planting of the bulbs should take place early in the autumn, for they require time to prepare themselves for their early flowering. And the next thing is to *leave them alone*, for annual disturbance is fatal to their prosperity.

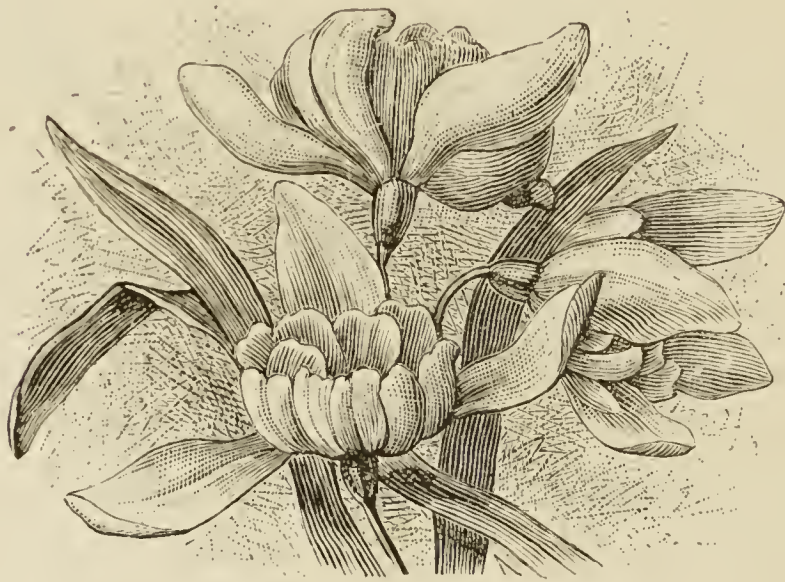
A very serious mistake is made in many gardens in the tying of the leaves of snowdrops and crocuses, to make them look "tidy." What an absurd proceeding! Tidy, indeed! The leaves fall over in the most graceful lines when left alone, and may supply an artist with a subject worthy of loving attention; but when tied they are hideously ugly and altogether ridiculous.

The varieties of snowdrops are about half a dozen in number. The first to flower is a dwarf sort, called *præcox*. In about seven days after this has flowered, the common *nivalis* shows its familiar flowers. These are succeeded by the princely *imperati*, which rises above all the rest, and produces larger flowers. *Plicatus* is the folded-leaved Crimean snowdrop, known by the folding of the edges of its leaves, which are larger than the leaves of the common variety. The flowers of this, however, are often smaller than those of the common snowdrop, and they are always somewhat greener. As regards colouring, green is often objectionable in a flower, but its combination with white in the subject before us is exquisitely beautiful. A variety with the divisions of the perianth bent back is called *reflexus*.

In parlour gardening, the snowdrop is occasionally grown in water-glasses, in association with crocuses, hyacinths, tulips, and polyanthus-daffodils. These bulbous-rooted flowers are all amenable to the water culture, and afford agreeable amusement to fireside gardeners. There are two points of importance in the management that it



may be well to mention. It is not well for the bulbs to touch the water ; there should be a space of at least an inch between the water and the bulbs. The other point is that the first growth should be made in the dark, to promote the free action of the roots before the leaves appear. When the flower-stem and leaves push in advance of the roots, a poor bloom may be expected ; but when the roots move first and spread freely, a good bloom may be expected, and there will be a saving of time in the end. It should be remembered further that full exposure to light is absolutely essential to the production of healthy leaves and flowers.



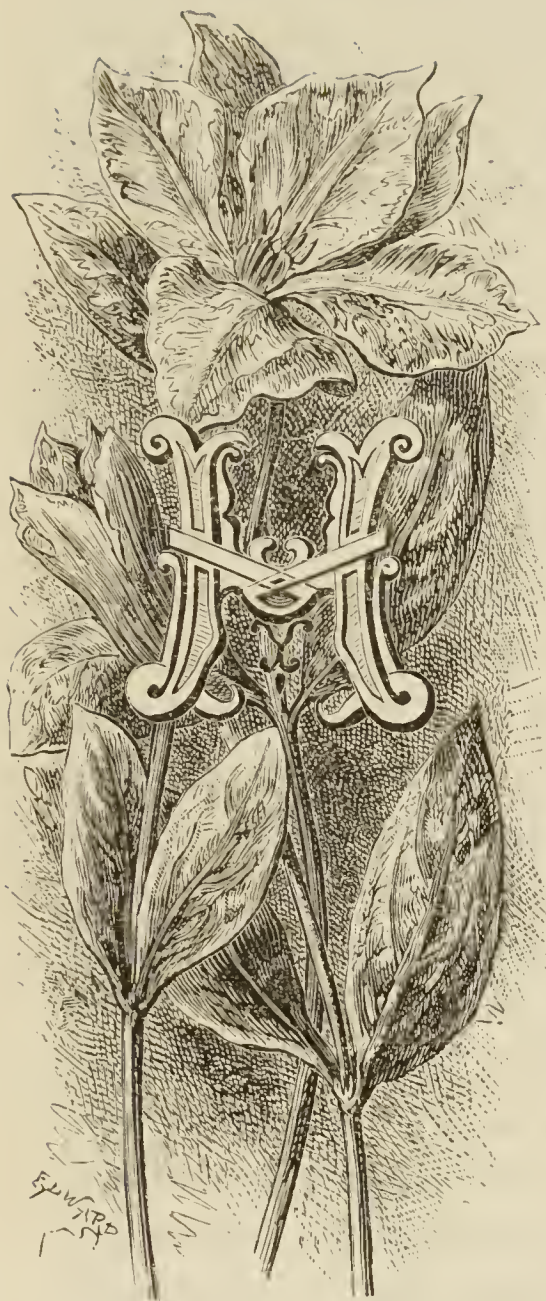






PURPLE CLEMATIS.





## THE PURPLE CLEMATIS.

*Clematis rubro-violacea.*

HYBRIDS of the more showy species of clematis are now so numerous as to constitute a distinct and large class of garden flowers. The parents of these many splendid varieties, of which *Clematis patens*, *C. lanuginosa*, *C. viticella*, and *C. Fortunei* may be named as having afforded the strongest characters, are for the most part traceable in them by the eye of an expert; but it happens that in a majority of instances the pedigrees have been preserved, and therefore a collection of clematis may be

studied with advantage by the scientific botanist, as they may be by the lover of flowers, for the sake of their beauty only. The variety figured is one of the most interesting in the scientific and historical view of the subject. In the year 1835 Mr. Henderson, a London nurseryman and horticulturist, raised a new hybrid, which was named in his honour *Clematis Hendersoni*. It was believed to be the result of a cross between *C. viticella* and *C. integrifolia*.

This "Henderson's clematis" is a fine climber, running ten to fifteen feet, and producing an abundant display of large handsome flowers of a purplish-blue colour. One of the grandest natural species (as distinguished from garden varieties) is *Clematis lanuginosa*. This produces flowers of immense size, the colour a soft lavender-blue or lilac-tinted grey, which is enriched with a tuft of reddish anthers. This plant does not flower so freely or so continuously as to satisfy the exigent florists, and the question has arisen, What can we do to improve it?

In the year 1858 Mr. George Jackman, of the Woking Nurseries, made an endeavour to meet that question, and extraordinary results have followed therefrom. He crossed *C. lanuginosa* with *C. Hendersoni*, and obtained two new and splendid varieties, producing flowers remarkable for their richness of colouring, their excessive profusion, and their long continuance. Rarely in the history of practical floriculture have we seen so great a triumph accomplished at one bound. The two new sorts were named respectively *C. Jackmanni* and *C. rubro-violacea*. The first-named is certainly one of the most popular garden flowers known. The other, of which we present a faithful portrait, is less popular, but not less worthy of esteem; for its flowers are exquisitely coloured and lustrous, and are produced in the most prodigal profusion—in fact, a verandah well clothed with this clematis will present during the later summer months a display of colour of the most surprising and delightful character.

These two varieties have in their turn produced innumerable seedlings; and from other crosses, effected by various cultivators, there have been secured valuable additions to the list of garden forms of this hardy and



useful flower. The free-growing sorts are amenable to the simplest treatment; but it should be said that they flower so freely that they must be well fed, or they will actually die out and give no account of themselves at all. They should be planted in well-prepared soil, consisting of good loam, liberally enriched with half-rotten manure—in fact, such a bed as would be prepared for climbing roses or wistarias; for plants that grow fast and far need to be well sustained at the root. These clematis, being planted in the spring, will probably run ten or twelve feet the same season, and will flower fairly well. The second year they will make a most vigorous growth and flower profusely. The third year they may be expected to do still greater things, and *then* they must have fresh food, or they will begin to travel down hill. If left alone they will still flower freely; but the flowers will become smaller year by year, and the plants will be bare of leaves except at the top. If still left without help they will dwindle away, and die at last through sheer exhaustion, unless indeed they happen to be peculiarly circumstanced as regards the food their roots can reach.

Thus we reach the second chapter in the management. When the plants are becoming “leggy” and the flowers small, they should be cut down to within eighteen inches of the ground. This may be best done at the end of the year, or early in January. Some time in February, or early in March, remove the top soil from over the roots, but taking care to injure them as little as possible, and put in its place a mixture of half-rotten manure and fresh turfy loam; at the same time take out a trench two feet deep and one foot wide at a distance of two feet from the stem of each, and fill this with a similar mixture. Then spread



over all a coat of fat stable manure, and leave the rest to nature, and you will be well rewarded in due time.

It is a matter of interest that hybrid clematis may be grown in beds, and in this case require to be trained over hoops to form a low convex shield-shaped mass of green leaves and gorgeous flowers. For this purpose the best are *Jackmanni*, with violet-purple flowers; *Rubro-violacea*, with maroon-purple flowers; *Alexandra*, reddish-violet; *Magnifica*, purple and red; *Rubella*, deep claret; *Star of India*, reddish-plum with red stripe; *Thunbridgense*, reddish-lilac with mauve stripe. Another use for them is as pillar plants, both in the garden and the conservatory; but when so grown out of doors, measures must be taken to prevent birds lodging on the tops of the pillars: sharp spikes will generally accomplish the purpose. Finally, when grown as round-headed bushes in tubs and pots they are superb adornments for the conservatory, the entrance hall, and the public exhibition.







TURK'S CAP OR YELLOW MARTAGON LILY.





## YELLOW MARTAGON LILY.

*Lilium pomponium.*

URING the last ten years or so the cultivation of lilies has expanded and intensified into a distinct floral passion, and as the prominent leaders have a considerable following, the passion is embellished with a fringe of fashion, and consequently many people dabble in lilies who have not much real enthusiasm and still less knowledge of the subject. The introduction of the noble *Lilium auratum* may be credited with the initiation of this new taste, and, beyond doubt, that lily of lilies is the true luminous centre around which the passion near, and the fashion far off, continually revolve. It is but a necessary circumstance that mistakes have been made in the selection and cultivation of lilies, and it is now beginning to be dimly discovered that certain members of this glorious family are not worth the serious attention of

any except enlightened enthusiasts, and amongst those the best chance of success will be by fate allotted to such as have the longest purses. It was the way of *Auratum*, the golden-rayed lily of Japan, when the bulbs were worth from one to five guineas each, to die ignominiously instead of gladdening with its magnificent flowers the devotee who had bled for it. Now that it is cheap it lives, and the reason is that we have learned to manage it both as to the buying and the planting; for lilies have soft bulbs, and if exposed to the exhaustive action of the air for any length of time are apt to resent the ill-treatment by shuffling off their mortal coil.

Certain of the lilies are not only deserving of a place, but are very much to be desired in every garden. The best for the borders and shrubberies are the Common White (*L. candidum*), the Orange (*L. bulbiferum*), the Canadian (*L. Canadense*), the Scarlet Martagon (*L. chalcedonicum*), the Turk's-cap (*L. martagon*), the Tiger (*L. tigrinum*), the Turban, or Yellow Martagon (*L. pomponium*), here figured, and Thunberg's (*L. Thunbergianum*). All these thrive in good loamy soil; they are rather injured than benefited by the addition to the soil of strong manures, but rotted turf and leaf mould are of great service when added to a loamy staple, when the beds are prepared for them.

The sorts that thrive best in peat, and, therefore, are admirably adapted for planting in the front of rhododendron beds, are the Golden-rayed (*L. auratum*), the Carolina (*L. Carolinianum*), the Japan (*L. Japonicum*), the American *L. superbum*, the Spotted (*L. speciosum*), and the Long-flowered (*L. longiflorum*). These constitute a fine collection, and all are hardy enough for open ground cultivation in the warmer parts of the British Isles.



where the soil is well drained, and positions somewhat sheltered are selected for them. The best time to plant lilies of all kinds is when the flowering is over and the leaves are turning yellow, as the growth of a lily is like the movement of a pendulum—when the energies are expended above, new growth begins below, and when the season of fresh root-action returns, the bulbs may be transplanted with safety.

The second selection which it is proposed to plant in peat constitutes a suitable selection for pot culture. First-class lilies are valuable pot plants, and if only a few sorts can be grown in pots for the conservatory, the best, beyond doubt, amongst the cheaper kinds are *Auratum*, *Speciosum*, and *Longiflorum*, for their flowers are exquisitely beautiful, richly scented, and last as long as any lilies known to us. To succeed with these as pot plants it is necessary to keep in mind that they should never be distressed at the root, and should never suffer through drought, or be excessively stimulated by liquid manure. Liberal treatment they should have, and a certain amount of fresh soil every year. To supply this the ball of roots should be turned out carefully, and a lot of the old soil removed, without denuding the bulbs completely; then they should be replaced in the same (or larger) pots, and filled in with fresh soil, into which they will soon strike roots and grow with renewed vigour.

All lilies may be forced, but it should be done gently. The last-named three are the best for forcing, and perhaps *Longiflorum*, because of the pure ivory-white of its elegant flowers, is most to be desired as a forced plant. A fine companion plant to force with it is the Trumpet Lily, *Calla* (or *Richardia*) *Æthiopica*, which is not a lily but an arum.



These two charming plants are of about equal value for decorative purposes. Of the two the Calla is the easier to force.

The Japanese cook and eat the bulbs of lilies, those of the Common White being much esteemed when served with white sauce. Tastes differ, as do sentiments; to us the eating of lily bulbs seems as foolish a proceeding as the eating of nightingale's tongues or the dissolving of pearls in vinegar to make sauce for a leg of mutton.

The place of the lily in literature would make a charming study for a lover of books, and the botanist might help sometimes to determine the meaning of delicate similes and comparisons. We cannot even touch the fringe of the subject here, but the thought has brought to our remembrance the heart-moving story of the "Lily Maid of Astolat," whom Lancelot rudely slighted—

"The dead,  
Steer'd by the dumb, went upward with the flood—  
In her right hand the lily, in her left  
The letter—all her bright hair streaming down."

*Elaine*, 1149.

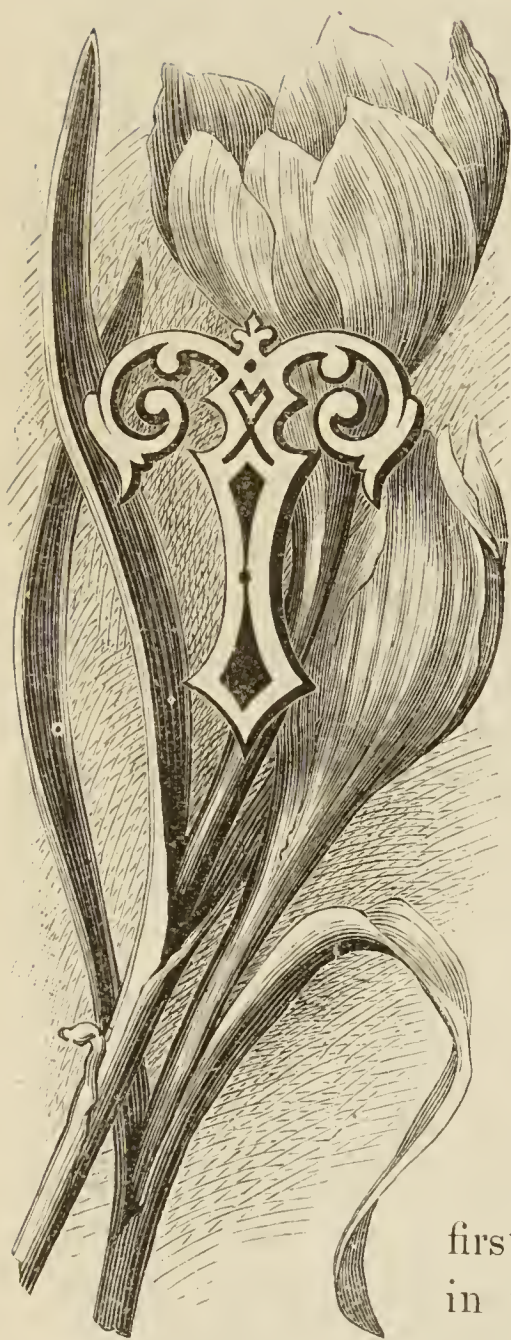






CROCUS.





## THE CROCUS.

*Crocus vernus.*

THE season when the crocuses are in their full splendour is pretty sure to give us a glorious burst of sunshine for a day, or even a week, and then the flowers expand to their utmost, and surprise us with their splendour. They seem to surprise the honey-bees no less, for the music they make as they brush up the pollen is just that of a crowd of working people rendered half delirious by the discovery of a gold-mine. And, indeed, it is a gold-mine to them, or, better still, a bread-mine, for the pollen becomes "bee-bread" when carried into the hive, and constitutes the first food of the callow-worm hidden in its cellular cot, and feeding itself up to the point when it will emerge as a perfect bee and join the general congregation. Bee-keepers cannot have too many crocuses, because at the time they flower the bees are more or less distressed and cannot travel far, and it is of immense value to them to find

refreshment near home, and thus be enabled without risk to "improve the shining hour."

The spring-flowering crocuses are as well known in a general way as any flowers of the garden. But those whose knowledge of horticulture is more than skin-deep can tell us of crocuses that flower in almost every month of the year. For the present purpose, however, we may divide them into two classes—those that flower in autumn and those that flower in spring. The naturalist may prove to us that the season in which a plant produces its flowers is determined by circumstances acting through many long years; but the poet has a perfect right to take another view of it as having no relation to heredity, climatical influence, or the origin of species. Good Gilbert White found in the crocus a sermon so plainly written that he who runs may read it for himself, and it might be interwoven with the pregnant text, "My times are in thy hand."

Three species of crocus claim priority of attention in this brief essay. The common yellow crocus of gardens is the *Crocus luteus* of the botanist. The native country of this is at present unknown, but it probably is "at home" somewhere on the shores of the Mediterranean. The finest of the yellow crocuses is known to traders in bulbs as the "Cloth of Gold;" this is the *Crocus susiana* of the botanist, native of the "Levant," which may mean anywhere in Asia Minor. The blue, white, and striped crocuses are the product of the spring crocus, *Crocus vernus* of the botanist, native of the Alps and Apennines.

The following less known species are worthy of especial attention by such as find amusement in collecting choice hardy flowers. *Crocus Imperati*, flowering in spring, creamy white with purple stripes, a very fine sweet-scented



species, the leaves distinctly marked with a central white line. *Crocus boryanus*, flowering in autumn, white with yellow throat with a stain of purple outside. *Crocus pulchellus*, flowering in autumn, pearly blue with dark pencil lines, the throat orange-yellow. *Crocus sativus*, the saffron crocus, an autumn-flowering plant, the flowers violet with long tubes, sweet-scented; requires a dry warm soil, or it will but rarely flower. The dried stigmas of this crocus constitute the genuine saffron of commerce. We say "genuine," because common shop saffron, like restaurant soup, is made of anything that comes nearest to hand, several other species of crocus being pressed into the service, with florets of the marigold and slices of the flowers of the pomegranate. It is not unlikely that a very nice-looking sample might be made from scraped carrots. The matter is not of great consequence now, because saffron has parted from the fame it enjoyed as a drug that "maketh the sences more quicke and liuely, shaketh off heauie and drowsie sleepe, and maketh a man merrie." Gerarde, from whom the foregoing is a quotation, figures several "saffrons," including crocuses and colchicums, and he reminds us that Saffron Walden obtains its name from the abundance of saffron-producing flowers in its vicinity. Finally, *Crocus speciosus* is a particularly fine autumn-flowering species, with flowers of a rich violet colour, striped with purple lines.

Crocuses of all kinds require a somewhat sandy and warm soil, but the common garden kinds will really thrive in almost any soil or situation. The rarer kinds, at all events, should have well-drained positions and a somewhat light soil, and, generally speaking, warmth, for they are natives of the south of Europe and Asia Minor, and,



even if mountaineers, are accustomed to brighter suns than shine in these foggy isles. All kinds of crocuses produce seed freely, and may be multiplied rapidly and with but little trouble, by sowing the seed in light, sandy soil as soon as it is ripe. When the corms are planted, the depth at which they are placed should be determined in connection with the intention to take them up annually or leave them untouched several years. If to be taken up and replanted every year, three inches is the utmost depth allowable; but if to remain a few years, they should be put fully four inches deep, because every year of growth will bring them nearer to the surface. When planted in a good soil they may be allowed to remain undisturbed for several years, but it is good practice to lift them every third year in the summer, and replant in October. They appear to degenerate in English gardens, because the corms we take up are always smaller than such as we plant when purchasing a fresh stock of the merchants; but these small home-grown corms flower remarkably well, and it is quite a question if the large fresh corms from Holland flower any better.



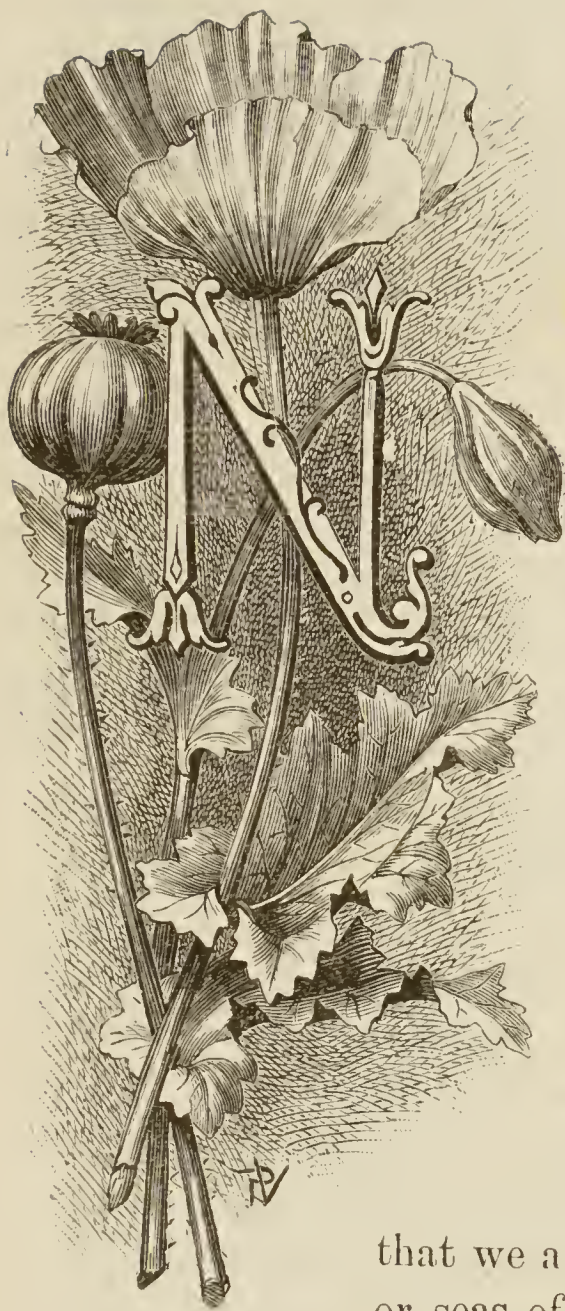






POPPY.





## THE POPPY.

*Papaver somniferum.*

O more interesting flower is to be found in the garden than the poppy, and a certain few kinds are extravagantly beautiful, though lamentably short-lived. It is essentially a classic flower, having from the most early times had a place of honour on the brow of the divine Ceres : for it was not left for the people of this century to discover that poppies love to grow amongst the corn. Our blazing red poppy, that oftentimes, as we hurry along through the sunshine in a railway train, spreads abroad in sheets, and suggests

that we are riding through lakes of blood or seas of fire, according as the light or the fancy may glorify the common-place fact—this scarlet poppy (*Papaver rhæas*) is, in some respects, distinct from the classic poppy, for it has an urn-shaped capsule, whereas the classic poppy (*P. somniferum*), which is the common field flower of Greece, has a roundish capsule, and the flowers are as com-

monly white as those of the British poppy are commonly red. It is, however, a sportive plant, and is met with in a variety of colours, of which the sample here figured is perhaps the most pleasing. The distinction we appear to make between the field poppies of England and Greece must be understood to apply to them only as common flowers of the field, for our red poppy is to be found in Greece, and the Greek white poppy is to be found in England; but in each case we may say of them they are as strangers and pilgrims.

Our business is to regard the poppy as a familiar garden flower, and we are therefore bound, in the first place, to say that the "pæony-flowered" and the "double-fringed" poppies that are described in the seed catalogues, and that are to be regarded as "garden poppies" in the fullest sense of the word, are really splendid flowers of their class, and perhaps the cheapest splendours available for the English garden. That they last "no time" is rather an advantage than otherwise, because, having startled us by their noble forms and gorgeous colours, they wisely get out of the way to make room for something else, as if well aware that the evanescence of fireworks is one of their charms: for what would become of us if they were to sparkle and crackle all night? But there are other and nobler garden poppies, different in style, but not necessarily more pleasing, but, all things considered, very much to be desired by those eclectic souls who look upon the garden as a sort of open-air museum for things curious and beautiful. We must therefore attempt a little essay on garden poppies.

All poppies, without exception, thrive best when fully exposed to sunshine and air, and on a dry, gritty soil.



They prefer silica to chalk, and hence our red poppy often betrays the poor gravel it is rioting on ; and its love of a dry foothold is proved by its happy state when located on the topmost ridge of some old castle wall, where it seems to outdo the snapdragon and the wallflower in its capability of living on nothing. But note what a starved thing it becomes when in this way beating the Frenchman's horse, and learn therefrom the lesson that even a poppy requires a certain amount of wholesome food. With this philosophical observation we conclude the first part of the practical essay.

It is a characteristic of poppy plants to make tap-roots : hence, in transplanting them, there is usually a season lost, because the inevitable breaking of the tap-roots prevents flowering the next season. But if the transplanting is done with care during moist, cool weather, it will not be attended with loss, because the plants have but to be left alone and they will make new tap-roots to replace those that have been broken by removal. When the plants are raised from seed, only a few should be sown in a pot, and of these the weakest should be removed as soon as possible. By carefully planting out from pots so prepared, serious injury to the tap-roots may be avoided ; and that part of the business should be kept in view as of primary importance in the cultivation of poppies.

In the selection of garden poppies, the showy annual kinds should, as remarked above, have special attention ; and the shortest way to deal with them is to sow them where they are to stand, and thin them out in good time, so that they do not crowd each other injuriously. The most generally useful of the perennial poppies is the great scarlet, or Siberian poppy (*Papaver bracteatum*). This is



well known for its neat, compact growth of greyish saw-toothed leaves, and its profusion of vivid orange-scarlet flowers in the early days of summer. This forms a deep tap-root, and should be handled with care in removal. As it produces new crowns in plenty, the readiest way to increase it is by division; but it seeds freely, and therefore can never be a scarce plant.

In the production of the potent drug, opium, several species of poppy are employed. The "proper" plant is *Papaver somniferum*, from which opium of the best quality may be obtained, not only in semi-tropical climates, but in England. The drug is obtained by making slight incisions in the green capsules, the result being that a milky exudation appears in the line of the wound, and this being scraped off is crude opium. Of its further preparation, and of its uses and abuses, it will not be expected there should be any disquisition here.

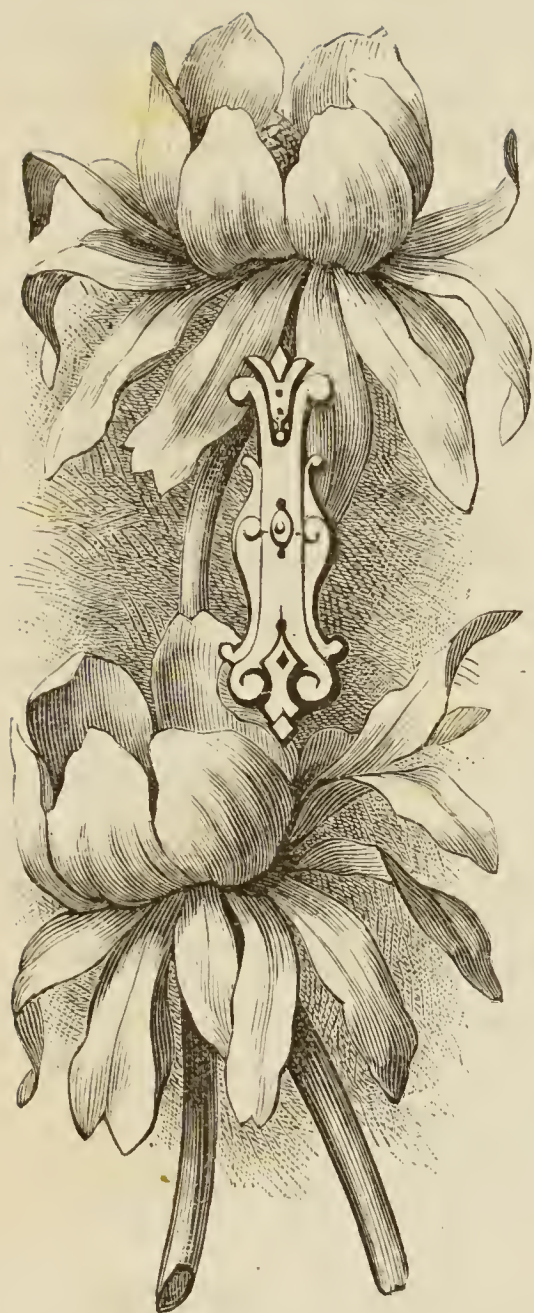






WINTER ACONITE.





## THE WINTER ACONITE.

*Eranthis hyemalis.*

N common with many of the humbler kinds of garden flowers, the winter aconite is but little known to humble gardeners, but the managers of "great places" know it, and prize it, and turn it to good account in the comparatively new order of decoration known as "spring gardening." It is but a little herb, with a dark tuberous root, producing in February or March yellow flowers, surrounded by a whorl of glossy-green deeply-cut leaves. It lasts but a short time, and is not very showy even at the best.

But as one star compels attention when the sky is black and no other star is to be seen, so this little flower, which is many degrees inferior in brightness of colouring to a common buttercup, has a most delightful appearance if we have the good fortune to see it on a soft sunny day in February. Then, indeed, it seems to say the spring is surely coming, and even the frost-defying daffodils, that

come before the swallow dares, are outdone in their haste to scatter gold upon the ground to pay for the reckless banqueting that is about to begin. In its own grassy nooks of sunny Italy it flowers at Christmas, but in this dull clime it does not often dare to lift up its head until the month of March, and even later, if the winter has been of the cruel kind that people, as if in contempt of the taste of their ancestors, cruelly describe as "old-fashioned." The humble gardener, as remarked above, scarcely knows this plant, although it is one of the cheapest, and will grow anywhere. But the gardener who has to keep a great parterre at all times gay has long since discovered its value, and therefore he plants hundreds or thousands, as the case may be, to produce masses of golden flowers, according to the requirements of his complicated designs in colour. It will not be expected that in this place there should appear a disquisition on the bedding system, but it is proper to note that in "spring bedding" the principal elements are such homely flowers as daisies, polyanthuses, forget-me-nots, primroses, and pansies; and where lines or blocks of soft yellow are required, the artist dips his pencil into *Eranthis hyemalis*, or, in other words, he plants the little herb, and leaves Dame Nature to bring out the colour.

But this is not the only way in which the winter aconite is employed in great gardens. One of the most pleasing of many good features in the spring gardening at Belvoir Castle consists in the management of grassy slopes that occur, as it were casually, in connection with the walks. These slopes are planted with snowdrops, crocuses, winter aconites, and other flowers that mingle unobtrusively and naturally with the grass, and their flowers are



indescribably charming, springing as they do from the rich green herbage, as if, like the wild buttercups and daisies, they were members of the gay family of vagrants to whom the prairie is a happy land.

But there is nothing new or strange in the employment of the winter aconite, either in the formal parterre or the half-wild grassy bank that perhaps mingles softly with a knoll of ivy. These matters are mentioned for the purpose of showing that a very humble and by no means showy plant has its uses, and is, in its way, invaluable to the master of decorative gardening. The little daughter of a great painter said to him one day, "Oh, how you are loading that picture with mud-colour!" The father took the pretty rebuke laughingly, and replied, "Yes, my little cherub, it will prove the best picture I have painted, and enable you to ride through the mud in a painted coach." And so it proved; but it was a long time ere the child could see beauty in mud-colour.

The winter aconite is a member of the great *Ranunculus* family, in which we meet with the true aconite. The old herbalists, in their fulsome writings, tired not of speaking in praise of the virtues of the true aconite. In Gerarde it is admirably figured under the name of "winter wolffesbane, *Aconitum hyemale*." He says: "It groweth upon the mountaines of Germanie; we haue great quantitie of it in our London gardens. It bloweth in Ianuarie: the seed is ripe in the end of March." He speaks of it as "very dangerous and deadly," as it is, and adds that it is mighty against the bites of scorpions: "If the scorpion passe by where it groweth and touch the same, presently he becommeth dull, heauie, and sencelesse."

The winter aconite is scarcely to be regarded as a good



border flower. At all events, when planted in the border it is exposed to the risk of being dug up and destroyed—a risk it shares in common with many good things that never last long where the practice of promiscuous digging of borders is permitted. The jobbing gardener appears to have been commissioned by Mephistopheles to crush out of existence all the good hardy plants, and to supply in their place geraniums at three shillings a dozen. He does his best, at all events, to annihilate daffodils, and pæonies, and delphiniums, and day-lilies, and aconites, and dielytras, because they do not show themselves at the time when he plies his spade industriously. Perhaps he ought to know that their roots are alive below ground, and ought not to be made into mincemeat; but we must make allowances, for it often happens that between what is and what “ought” to be there is a great gulf fixed, and a man may be a gardener and yet not know everything.



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